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National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing; and National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[FRL–7236–5]

RIN 2060–A167 and 2060–A168

National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing; and National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The EPA is adding two source categories, brick and structural clay products (BSCP) manufacturing and clay ceramics manufacturing, to the list of categories of major sources of hazardous air pollutants (HAP) published under section 112(c) of the Clean Air Act (CAA) and to the source category schedule for national emission standards for hazardous air pollutants (NESHAP). The two source categories being added were originally included in the clay products manufacturing source category, which was on the initial list of source categories to be regulated. The EPA is, at the same time, proposing NESHAP for new and existing sources at BSCP manufacturing facilities and NESHAP for new sources at clay ceramics manufacturing facilities. The two proposed subparts would require major sources to meet emission standards reflecting the application of maximum achievable control technology (MACT). The HAP emitted by facilities in the BSCP and clay ceramics manufacturing source categories include hydrogen fluoride (HF), hydrogen chloride (HCl), and metals (antimony, arsenic, beryllium, cadmium, chromium, cobalt, mercury, manganese, nickel, lead, and selenium). Exposure to these substances has been demonstrated to cause adverse health effects such as irritation of the lung, skin, and mucus membranes, effects on the central nervous system, and kidney damage. The EPA has classified three of the HAP as human carcinogens, four as probable human carcinogens, and one as a possible human carcinogen. We estimate that the proposed rules would reduce nationwide emissions of HAP from these facilities by approximately 2,600 megagrams per year (Mg/yr)(2,800 tons per year (tpy)), a reduction of approximately 45 percent from the current level of emissions.

DATES: *Comments.* Submit comments on or before September 20, 2002.

Public Hearing. If anyone contacts the EPA requesting to speak at a public hearing by August 12, 2002, a public hearing will be held on August 21, 2002.

ADDRESSES: *Comments on BSCP Manufacturing NESHAP.* By U.S. Postal Service, written comments on the proposed BSCP manufacturing NESHAP should be submitted (in duplicate if possible) to: Air and Radiation Docket and Information Center (6102), Attention Docket Number A–99–30, U.S. EPA, 1200 Pennsylvania Avenue, NW., Washington, DC 20460. In person or by courier, deliver comments (in duplicate if possible) to: Air and Radiation Docket and Information Center (6102), Attention Docket Number A–99–30, Room M–1500, U.S. EPA, 401 M Street, SW., Washington, DC 20460. The EPA requests a separate copy also be sent to the contact person listed below (*see* **FOR FURTHER INFORMATION CONTACT**).

Comments on Clay Ceramics Manufacturing NESHAP. By U.S. Postal Service, written comments on the proposed clay ceramics manufacturing NESHAP should be submitted (in duplicate if possible) to: Air and Radiation Docket and Information Center (6102), Attention Docket Number A–2000–48, U.S. EPA, 1200 Pennsylvania Avenue, NW., Washington, DC 20460. In person or by courier, deliver comments (in duplicate if possible) to: Air and Radiation Docket and Information Center (6102), Attention Docket Number A–2000–48, Room M–1500, U.S. EPA, 401 M Street, SW., Washington, DC 20460. The EPA requests a separate copy also be sent to the contact person listed below (*see* **FOR FURTHER INFORMATION CONTACT**).

Public Hearing. If a public hearing is held, it will be held at 10 a.m. on August 21, 2002 at the EPA's Environmental Research Center Auditorium, Research Triangle Park, North Carolina, or at an alternate site nearby.

Docket. Docket No. A–99–30 contains supporting information used in developing the proposed BSCP standards. Docket No. A–2000–48 contains supporting information used in developing the proposed clay ceramics standards. The dockets are 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: For questions about the proposed rules, contact Ms. Mary Johnson, Combustion Group, Emission Standards Division (MC–C439–01), U.S. EPA, Research Triangle Park, North Carolina 27711, telephone number (919) 541–5025, e-mail address: *johnson.mary@epa.gov.* For questions about the public hearing, contact Ms. Tanya Medley, Minerals and Inorganic Chemicals Group, Emission Standards Division (MC–C504–05), U.S. EPA, Research Triangle Park, North Carolina 27711, telephone number (919) 541–5422, e-mail address: *medley.tanya@epa.gov.*

SUPPLEMENTARY INFORMATION:

Comments. Comments and data may be submitted by electronic mail (e-mail) to: *a-and-r-docket@epa.gov.* Electronic comments must be submitted as an ASCII file to avoid the use of special characters and encryption problems and will also be accepted on disks in WordPerfect® version 5.1, 6.1 or Corel 8 file format. All comments and data submitted in electronic form must note the docket number: A–99–30 for BSCP manufacturing and A–2000–48 for clay ceramics manufacturing. No confidential business information (CBI) should be submitted by e-mail. Electronic comments may be filed online at many Federal Depository Libraries.

Commenters wishing to submit proprietary information for consideration must clearly distinguish such information from other comments and clearly label it as CBI. Send submissions containing such proprietary information directly to the following address, and not to the public docket, to ensure that proprietary information is not inadvertently placed in the docket: OAQPS Document Control Officer, MC–C404–02, Attention: Ms. Mary Johnson, U.S. EPA, Research Triangle Park, North Carolina 27711. The EPA will disclose information identified as CBI only to the extent allowed by the procedures set forth in 40 CFR part 2. If no claim of confidentiality accompanies a submission when it is received by the EPA, the information may be made available to the public without further notice to the commenter.

Public Hearing. Persons interested in presenting oral testimony or inquiring as to whether a hearing is to be held should contact Ms. Tanya Medley at least 2 days in advance of the public hearing. Persons interested in attending the public hearing must also call Ms. Medley to verify the time, date, and location of the hearing. The address, telephone number, and e-mail address for Ms. Medley are listed in the preceding **FOR FURTHER INFORMATION CONTACT** section. If a public hearing is held, it will provide interested parties

the opportunity to present data, views, or arguments concerning these proposed emission standards.

Docket. The dockets are organized and complete files of all the information considered by the EPA in the development of the proposed rules. The dockets are dynamic files 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 dockets will serve as the record in the case of judicial review. (See section 307(d)(7)(A) of the CAA.) The regulatory text and other materials related to the proposed rules are available for review in the dockets, 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.

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

Regulated Entities. Entities potentially regulated by this action are those industrial facilities that manufacture BSCP and clay ceramics. Brick and structural clay products manufacturing is classified under Standard Industrial Classification (SIC) codes 3251, Brick and Structural Clay Tile; 3253, Ceramic Wall and Floor Tile; and 3259, Other Structural Clay Products. The North American Industry Classification System (NAICS) codes for BSCP manufacturing are 327121, Brick and Structural Clay Tile; 327122, Ceramic Wall and Floor Tile Manufacturing; and 327123, Other Structural Clay Products. Clay ceramics manufacturing is classified under SIC codes 3253, Ceramic Wall and Floor Tile; and 3261, Vitreous Plumbing Fixtures (Sanitaryware). The NAICS codes for clay ceramics manufacturing are 327122, Ceramic Wall and Floor Tile Manufacturing; and 327111, Vitreous China Plumbing Fixture and China and Earthenware Bathroom Accessories Manufacturing. Regulated categories and entities are shown in Table 1 of this preamble.

TABLE 1.—REGULATED CATEGORIES AND ENTITIES

Category	SIC	NAICS	Examples of potentially regulated entities
Industrial	3251	327121	Brick and structural clay tile manufacturing facilities (BSCP NESHAP)
Industrial	3253	327122	Ceramic wall and floor tile manufacturing facilities (Clay Ceramics NESHAP) and extruded tile manufacturing facilities (BSCP NESHAP)
Industrial	3259	327123	Other structural clay products manufacturing facilities (BSCP NESHAP)
Industrial	3261	327111	Vitreous plumbing fixtures (sanitaryware) manufacturing facilities (Clay Ceramics NESHAP)

This table 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 § 63.8385 of the proposed BSCP rule and § 63.8535 of the proposed clay ceramics rule. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

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

I. Introduction
A. What is the source of authority for development of NESHAP?
B. What criteria are used in the development of NESHAP?
C. What is the history of the source categories?
D. What are the health effects of pollutants emitted from the brick and structural clay products manufacturing and clay ceramics manufacturing source categories?
II. Summary of the Proposed Rule for Brick and Structural Clay Products Manufacturing
A. What source category is regulated by the proposed rule?
B. What are the affected sources?
C. When must I comply with the proposed rule?
D. What are the emission limits?
E. What are the operating limits?
F. What are the performance test and initial compliance requirements?
G. What are the continuous compliance requirements?
H. What are the notification, recordkeeping, and reporting requirements?
III. Summary of Environmental, Energy, and Economic Impacts for the Proposed Brick and Structural Clay Products Manufacturing NESHAP
A. What are the air quality impacts?
B. What are the water and solid waste impacts?
C. What are the energy impacts?
D. Are there any additional environmental and health impacts?
E. What are the cost impacts?
F. How can we reduce the cost of the proposed rule?
G. What are the economic impacts?
IV. Rationale for Selecting the Proposed Standards for Brick and Structural Clay Products Manufacturing
A. How did we select the emission sources and pollutants that will be regulated?
B. How did we determine subcategories?
C. How did we determine the MACT floors for existing sources?
D. How did we determine the MACT floors for new sources?
E. How did we select the format of the proposed rule?
F. How did we determine the emission limits?
G. How did we select the operating limits and monitoring requirements?
V. Summary of the Proposed Rule for Clay Ceramics Manufacturing
A. What source category is regulated by the proposed rule?
B. What are the affected sources?
C. When must I comply with the proposed rule?
D. What are the emission limits?
E. What are the operating limits?
F. What are the performance test and initial compliance requirements?
G. What are the continuous compliance requirements?
H. What are the notification, recordkeeping, and reporting requirements?
VI. Summary of Environmental, Energy, and Economic Impacts for the Proposed Clay Ceramics Manufacturing NESHAP
A. What are the air quality impacts?
B. What are the water and solid waste impacts?
C. What are the energy impacts?
D. Are there any additional environmental and health impacts?
E. What are the cost impacts?
F. What are the economic impacts?

VII. Rationale for Selecting the Proposed Standards for Clay Ceramics Manufacturing
A. How did we select the emission sources and pollutants that will be regulated?
B. How did we determine subcategories?
C. How did we determine the MACT floors for existing sources?
D. How did we determine the MACT floors for new sources?
E. How did we select the format of the proposed rule?
F. How did we determine the emission limits?
G. How did we select the operating limits and monitoring requirements?
VIII. Solicitation of Comments and Public Participation
IX. Administrative Requirements
A. Executive Order 12866, Regulatory Planning and Review
B. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks
C. Executive Order 13132, Federalism
D. Executive Order 13175, Consultation and Coordination with Indian Tribal Governments
E. Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use
F. Unfunded Mandates Reform Act of 1995
G. Regulatory Flexibility Act, as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996, 5 U.S.C. 601 *et seq.*
H. Paperwork Reduction Act
I. National Technology Transfer and Advancement Act of 1995

I. Introduction

A. What Is the Source of Authority for Development of NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. Major sources of HAP are those stationary sources or groups of stationary sources that are located within a contiguous area under common control that emit or have the potential to emit, considering controls, 9.07 Mg/yr (10 tpy) or more of any one HAP or 22.68 Mg/yr (25 tpy) or more of any combination of HAP. Area sources are those stationary sources or groups of stationary sources that are not major sources.

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 section 112(d)(3) of the CAA. In essence, the MACT floor ensures that the standard is set at a level that assures that all major sources achieve the level of control at least as stringent as that already achieved by the better-controlled and lower-emitting sources in each source category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than 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. What Is the History of the Source Categories?

We published an initial list of source categories on July 16, 1992 (57 FR 31576). Included on the initial source category list were major sources of HAP emissions from the clay products manufacturing industry.

Early in the regulatory development process, four distinct industries were identified within the clay products manufacturing source category. In a notice published in the **Federal Register** on November 18, 1999 (64 FR 63025), we stated that we anticipated replacing the clay products manufacturing source category with four separate source categories representing those four industries: BSCP manufacturing, ceramics manufacturing, clay minerals processing, and lightweight aggregate manufacturing. We further stated that we expected to propose and promulgate separate MACT standards for each of the anticipated four source categories, and that the proposal for each of the standards would add the new source category to the source category list (64 FR 63028).

After further consideration, we have decided to propose and promulgate MACT standards for only two of the four anticipated source categories: BSCP manufacturing and clay ceramics manufacturing. These two categories are included in this action. The similarity of affected sources and types of HAP emissions within these two categories provides the opportunity to propose rules for both industries under one action. Consequently, today's action replaces the clay products manufacturing source category on the source category list with BSCP manufacturing and clay ceramics manufacturing. At this time, we do not anticipate proposing and promulgating MACT standards for the clay minerals processing and lightweight aggregate manufacturing industries. Because we have not added those industries to the source category list, we need not take formal action to remove them from the list. However, we are providing notice of our current plans here so that interested persons have an opportunity to comment.

D. What Are the Health Effects of Pollutants Emitted From the Brick and Structural Clay Products Manufacturing and Clay Ceramics Manufacturing Source Categories?

Today's proposed rules protect air quality and promote the public health by reducing emissions of some of the HAP listed in section 112(b)(1) of the CAA. Emissions data collected during development of the proposed rules show that HF, HCl, and metals (antimony, arsenic, beryllium, cadmium, chromium, cobalt, mercury, manganese, nickel, lead, and selenium) are emitted from BSCP and clay ceramics manufacturing facilities. Exposure to these HAP is associated with a variety of adverse health effects. These adverse health effects include chronic health disorders (*e.g.,* irritation of the lung, skin, and mucus membranes, effects on the central nervous system, and damage to the kidneys), and acute health disorders (*e.g.,* lung irritation and congestion, alimentary effects such as nausea and vomiting, and effects on the kidney and central nervous system). We have classified three of the HAP as human carcinogens, four as probable human carcinogens, and one as a possible human carcinogen. We do not know the extent to which the adverse health effects described above occur in the populations surrounding these facilities. However, to the extent the adverse effects do occur, today's proposed rules would reduce emissions and subsequent exposures.

1. Hydrogen Fluoride

Acute (short-term) inhalation exposure to gaseous HF can cause severe respiratory damage in humans,

including severe irritation and pulmonary edema. Chronic (long-term) exposure to fluoride at low levels has a beneficial effect of dental cavity prevention and may also be useful for the treatment of osteoporosis. Exposure to higher levels of fluoride may cause dental fluorosis or mottling, while very high exposures through drinking water or air can result in crippling skeletal fluorosis. One study reported menstrual irregularities in women occupationally exposed to fluoride. We have not classified HF for carcinogenicity.

2. Hydrogen Chloride

Hydrogen chloride, also called hydrochloric acid, is corrosive to the eyes, skin, and mucous membranes. Acute (short-term) inhalation exposure may cause eye, nose, and respiratory tract irritation and inflammation and pulmonary edema in humans. Chronic (long-term) occupational exposure to HCl has been reported to cause gastritis, bronchitis, and dermatitis in workers. Prolonged exposure to low concentrations may also cause dental discoloration and erosion. No information is available on the reproductive or developmental effects of HCl in humans. In rats exposed to HCl by inhalation, altered estrus cycles have been reported in females and increased fetal mortality and decreased fetal weight have been reported in offspring. We have not classified HCl for carcinogenicity.

3. Antimony

Acute (short-term) exposure to antimony by inhalation in humans results in effects on the skin and eyes. Respiratory effects, such as inflammation of the lungs, chronic bronchitis, and chronic emphysema, are the primary effects noted from chronic (long-term) exposure to antimony in humans via inhalation. Human studies are inconclusive regarding antimony exposure and cancer, while animal studies have reported lung tumors in rats exposed to antimony trioxide via inhalation. We have not classified antimony for carcinogenicity.

4. Arsenic

Acute (short-term) high-level inhalation exposure to arsenic dust or fumes has resulted in gastrointestinal effects (nausea, diarrhea, abdominal pain), and central and peripheral nervous system disorders. Chronic (long-term) inhalation exposure to inorganic arsenic in humans is associated with irritation of the skin and mucous membranes. Human data suggest a relationship between inhalation exposure of women working at or living near metal smelters and an increased risk of reproductive effects, such as spontaneous abortions. Inorganic arsenic exposure in humans by the inhalation route has been shown to be strongly associated with lung cancer, while ingestion of inorganic arsenic in humans has been linked to a form of skin cancer and also to bladder, liver, and lung cancer. We have classified inorganic arsenic as a Group A, human carcinogen.

5. Beryllium

Acute (short-term) inhalation exposure to high levels of beryllium has been observed to cause inflammation of the lungs or acute pneumonitis (reddening and swelling of the lungs) in humans; after exposure ends, these symptoms may be reversible. Chronic (long-term) inhalation exposure of humans to beryllium has been reported to cause chronic beryllium disease (berylliosis), in which granulomatous (noncancerous) lesions develop in the lung. Inhalation exposure to beryllium has been demonstrated to cause lung cancer in rats and monkeys. Human studies are limited, but suggest a causal relationship between beryllium exposure and an increased risk of lung cancer. We have classified beryllium as a Group B1, probable human carcinogen.

6. Cadmium

The acute (short-term) effects of cadmium inhalation in humans consist mainly of effects on the lung, such as pulmonary irritation. Chronic (long-term) inhalation or oral exposure to cadmium leads to a build-up of cadmium in the kidneys that can cause kidney disease. Cadmium has been shown to be a developmental toxicant in animals, resulting in fetal malformations and other effects, but no conclusive evidence exists in humans. An association between cadmium exposure and an increased risk of lung cancer has been reported from human studies, but these studies are inconclusive due to confounding factors. Animal studies have demonstrated an increase in lung cancer from long-term inhalation exposure to cadmium. We have classified cadmium as a Group B1, probable human carcinogen.

7. Chromium

Chromium may be emitted in two forms, trivalent chromium (chromium III) or hexavalent chromium (chromium VI). The respiratory tract is the major target organ for chromium VI toxicity, for acute (short-term) and chronic (long-term) inhalation exposures. Shortness of breath, coughing, and wheezing have been reported from acute exposure to chromium VI, while perforations and ulcerations of the septum, bronchitis, decreased pulmonary function, pneumonia, and other respiratory effects have been noted from chronic exposure. Limited human studies suggest that chromium VI inhalation exposure may be associated with complications during pregnancy and childbirth, while animal studies have not reported reproductive effects from inhalation exposure to chromium VI. Human and animal studies have clearly established that inhaled chromium VI is a carcinogen, resulting in an increased risk of lung cancer. We have classified chromium VI as a Group A, human carcinogen.

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

8. Cobalt

Acute (short-term) exposure to high levels of cobalt by inhalation in humans and animals results in respiratory effects such as a significant decrease in ventilatory function, congestion, edema, and hemorrhage of the lung. Respiratory effects are also the major effects noted from chronic (long-term) exposure to cobalt by inhalation, with respiratory irritation, wheezing, asthma, pneumonia, and fibrosis noted. Cardiac effects, congestion of the liver, kidneys, and conjunctiva, and immunological effects have also been noted in humans. Cobalt is an essential element in humans, as a constituent of vitamin B12. Human and animal studies are inconclusive with respect to potential carcinogenicity of cobalt. We have not classified cobalt for carcinogenicity.

9. Mercury

Mercury exists in three forms: Elemental mercury, inorganic mercury compounds (primarily mercuric chloride), and organic mercury compounds (primarily methyl mercury). Each form exhibits different health effects. Brick, structural clay products, and clay ceramics manufacturing may release elemental or inorganic mercury, but not methyl mercury so those health effects are not addressed in this preamble. Acute (short-term) exposure to high levels of elemental mercury in humans results in central nervous system (CNS) effects such as tremors,

mood changes, and slowed sensory and motor nerve function. High inhalation exposures can also cause kidney damage and effects on the gastrointestinal tract and respiratory system. Chronic (long-term) exposure to elemental mercury in humans also affects the CNS, with effects such as increased excitability, irritability, excessive shyness, and tremors. We have not classified elemental mercury for carcinogenicity.

Acute exposure to inorganic mercury by the oral route may result in effects such as nausea, vomiting, and severe abdominal pain. The major effect from chronic exposure to inorganic mercury is kidney damage. Reproductive and developmental animal studies have reported effects such as alterations in testicular tissue, increased embryo resorption rates, and abnormalities of development. Mercuric chloride (an inorganic mercury compound) exposure has been shown to result in forestomach, thyroid, and renal tumors in experimental animals. We have classified mercuric chloride as a Group C, possible human carcinogen.

10. Manganese

Health effects in humans have been associated with both deficiencies and excess intakes of manganese. Chronic (long-term) exposure to low levels of manganese in the diet is considered to be nutritionally essential in humans, with a recommended daily allowance of 2 to 5 milligrams per day (mg/d). Chronic exposure to high levels of manganese by inhalation in humans results primarily in CNS effects. Visual reaction time, hand steadiness, and eye-hand coordination were affected in chronically-exposed workers. Manganism, characterized by feelings of weakness and lethargy, tremors, a mask-like face, and psychological disturbances, may result from chronic exposure to higher levels. Impotence and loss of libido have been noted in male workers afflicted with manganism attributed to inhalation exposures. We have classified manganese as Group D, not classifiable as to human carcinogenicity.

11. Nickel

Nickel is an essential element in some animal species, and it has been suggested it may be essential for human nutrition. Nickel dermatitis, consisting of itching of the fingers, hands, and forearms, is the most common effect in humans from chronic (long-term) skin contact with nickel. Respiratory effects have also been reported in humans from inhalation exposure to nickel. No information is available regarding the reproductive or developmental effects of nickel in humans, but animal studies have reported such effects. Human and animal studies have reported an increased risk of lung and nasal cancers from exposure to nickel refinery dusts and nickel subsulfide. Animal studies of soluble nickel compounds (i.e., nickel carbonyl) have reported lung tumors. We have classified nickel refinery dust and nickel subsulfide as Group A, human carcinogens, and nickel carbonyl as a Group B2, probable human carcinogen.

12. Lead

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

13. Selenium

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

II. Summary of the Proposed Rule for Brick and Structural Clay Products Manufacturing

A. What Source Category Is Regulated by the Proposed Rule?

Today's proposed rule for BSCP manufacturing applies to BSCP manufacturing facilities that are, are located at, or are part of, a major source of HAP emissions. The BSCP manufacturing source category includes those facilities that manufacture brick (face brick, structural brick, brick pavers, other brick); clay pipe; roof tile; extruded floor and wall tile; and/or other extruded, dimensional clay products. Brick and structural clay products primarily are produced from common clay and shale. Production of BSCP typically consists of processing and handling the raw materials, forming and cutting bricks and shapes, and drying and firing the bricks and shapes. One by-product of brick manufacturing is crushed brick, which is produced at some facilities by crushing reject bricks.

There are a total of 189 domestic BSCP manufacturing facilities; 170 of these facilities primarily produce brick, and 19 of these facilities primarily produce structural clay products. The 189 BSCP manufacturing facilities are located in 39 States and are owned by 90 companies. Seventy-seven of the companies are small businesses, and these 77 companies own 93 of the BSCP manufacturing facilities. Thirteen of the companies are large businesses, and these 13 companies own 96 BSCP manufacturing facilities.

All BSCP are fired either in continuous (tunnel or roller) or batch (periodic) kilns. Because the vast majority of continuous kilns are tunnel kilns, continuous kilns, including roller kilns, will be referred to as tunnel kilns for the remainder of this preamble. A total of 308 permitted and operable tunnel kilns were reported by industry; 296 of these kilns are located at facilities that are estimated, based on uncontrolled emissions, to be major sources. Of the 296 tunnel kilns located at major sources, 269 are located at brick manufacturing facilities and 27 are located at structural clay products manufacturing facilities. A total of 227 permitted and operable periodic kilns

were reported by industry; 164 of these kilns are located at facilities that are estimated to be major sources. Of the 164 periodic kilns located at major sources, 81 are located at brick manufacturing facilities and 83 are located at structural clay products manufacturing facilities.

Most tunnel kilns are fired with natural gas, although coal, sawdust, landfill gas, and fuel oil also are used. Many kilns have propane available as a back-up fuel. Most of the sawdust-fired tunnel kilns duct some or all of the kiln exhaust to rotary sawdust dryers prior to release to the atmosphere. Tunnel kilns range in size from about 104 meters (m) (340 feet (ft)) to 152 m (500 ft) in length and include a dryer, a firing zone, and a cooling zone. The dryer can be a totally separate structure from the tunnel kiln or can be in-line (part of the tunnel kiln). In tunnel kilns with in-line dryers, the dryer and kiln exhaust fans are balanced so that kiln combustion gases do not enter the dryer. A neutral point, created by the draft from the dryer and the kiln, separates the dryer and kiln atmospheres. A similar neutral point also exists between the firing and cooling zones of all tunnel kilns. Some dryers that precede coal-fired kilns use kiln gases to aid in the drying process. This process is called back-drafting and is accomplished by changing the balance between the dryer and kiln exhaust fans so that the dryer/kiln neutral point moves into the kiln and allows some combustion gases to enter the dryer. Tunnel kiln firing zones typically maintain a maximum temperature of about 1090°C (2000°F). Production rates for tunnel kilns averaged about 5.7 megagrams per hour (Mg/hr) (6.3 tons per hour (tph)) in 1996. During firing, small amounts of excess fuel, typically natural gas, are sometimes introduced to the kiln atmosphere, creating a reducing atmosphere that adds color to the surface of the bricks. This process is called flashing. After firing, the bricks enter the cooling zone, where they are cooled to near ambient temperatures before leaving the tunnel kiln. The bricks then are removed from the kiln cars, stored, and shipped.

Periodic kilns are the most common type of kiln for firing clay pipe and are also used to produce brick and other structural clay products. Types of periodic kilns that are used in the BSCP industry include beehive kilns and shuttle kilns. Beehive kilns are round, brick structures in which bricks or structural clay products are manually loaded or stacked. Shuttle kilns typically are steel-framed, refractory-lined structures that are loaded with brick or structural clay product-laden kiln cars. Following loading, periodic kilns are fired for a set amount of time, depending on the product. Firing cycles for brick range from 40 hours to about 200 hours. Firing cycles for structural clay products vary over a much wider range (16 hours to about 700 hours) because the sizes of the products vary over a wide range. The average production rate for periodic kilns in the industry is less than 0.5 tph (on a continuous basis). Structural clay tile that are fired in periodic kilns typically require relatively short firing cycles, while large clay pipe typically require hundreds of hours. Facilities that use periodic kilns typically operate several kilns, and groups or banks of periodic kilns often are ducted to a single stack. Most periodic kilns are fired with natural gas, while a few periodic kilns are fired with coal or sawdust.

The primary HAP emissions sources at BSCP manufacturing plants are tunnel kilns and periodic kilns, which emit HF, HCl, and HAP metals. Kilns also emit particulate matter (PM) and sulfur dioxide (SO_2). Other sources of HAP emissions at BSCP manufacturing plants are the raw material processing and handling equipment. The air pollution control devices (APCD) that are used by the industry to control emissions from kilns include dry lime injection fabric filters (DIFF), dry lime scrubber/fabric filters (DLS/FF), dry limestone adsorbers (DLA), wet scrubbers (WS), and fabric filters. The following paragraphs describe the control systems.

Dry lime injection fabric filters are used to control HF, HCl, SO_2, and PM emissions from tunnel kilns. These systems inject hydrated lime (a dry lime powder) into the kiln exhaust. The lime and kiln exhaust mix in a reaction chamber or an exhaust duct and are ducted to a fabric filter. Acid gas removal takes place in the exhaust duct or reaction chamber and subsequent ductwork, and across the lime-caked fabric filter bags. The fabric filter then removes the lime and other PM from the exhaust stream prior to release to the atmosphere. The spent lime and PM collected by the fabric filter are then disposed of as solid waste. One facility ships the lime to a landfill where it is used to solidify liquid hazardous waste. The facility does not have to pay for spent lime disposal (other than shipping costs) because the lime is useful to the landfill.

Dry lime scrubber/fabric filters are also used to control HF, HCl, SO_2, and PM emissions from tunnel kilns. These systems mix fresh hydrated lime, re-circulated hydrated lime, and a small amount of water in a conditioning drum. The lime/water mixture then is injected into a reaction chamber where it mixes with the kiln exhaust. Acid gas removal takes place in the reaction chamber, subsequent ductwork, and across the lime-caked fabric filter bags. Additionally, the hot exhaust gases from the kiln evaporate the water in the lime/water mixture, thereby cooling the exhaust gases before entering the fabric filter. From the reaction chamber, the exhaust stream is ducted to a fabric filter for PM removal, and a percentage of the fabric filter catch is reintroduced into the conditioning drum along with fresh lime and water.

Dry limestone adsorbers are also used to control tunnel kiln emissions. These systems feed limestone into the top of a reaction chamber countercurrent to the kiln exhaust gases. The limestone cascades through multiple baffles within the chamber and reacts with and removes HF, and, to a lesser degree, HCl and SO_2 from the kiln exhaust. The system does not provide a mechanism for controlling PM and may actually create PM emissions in some instances. Depending on the system, the limestone is then pneumatically conveyed directly back to the top of the chamber or is mechanically processed (scraped) to remove reacted material from the surface and then pneumatically conveyed back to the top of the reaction chamber. New limestone is periodically added to the system as needed. We have several concerns, which are discussed in section IV.B of this preamble, with the DLA control technology.

Attempts are currently under way to control a periodic kiln with a DLA, but based on available test data and discussions with the facility manager, the system has not been successful in controlling HF emissions from the kiln. The facility is continuing efforts to solve the problems with the APCD, but at this point, the DLA has not been proven effective for controlling emissions from periodic kilns.

Wet scrubbers are also used to control HF, HCl, SO_2, and PM emissions from tunnel kilns. One type of WS system currently in use is a vertical, packed-tower scrubber. This system first quenches the exhaust gases with a soda-ash and water solution. The exhaust gases then pass through 5 feet of random dump packing followed by a demister. The soda-ash and water solution is also added to the top of the packing material, countercurrent to the gas flow. The other WS currently in use, which recently began operation, is a fluidized bed scrubber that uses water and sodium hydroxide as the scrubbing solution. Test data documenting the

performance of the fluidized bed scrubber are not yet available. The facility that is currently operating wet scrubbers discharges the scrubber wastewater directly to the sewer. This water disposal option is not available to all facilities, but some facilities have indicated that they would have similar disposal options.

In addition, another type of wet scrubber system has been developed specifically for the brick industry. The system is a cross-flow scrubber that includes the addition of magnesium hydroxide ($Mg(OH)_2$) to the scrubber water. The $Mg(OH)_2$ reacts with HF, HCl, and SO_2 to form several salts, including magnesium fluoride (MgF_2), magnesium chloride ($MgCl_2$), and magnesium sulfate ($MgSO_4$). A pilot-scale test of the system reportedly showed HF control efficiencies greater than 99 percent, SO_2 control efficiencies greater than 95 percent, and PM concentrations lower than 0.023 grams per dry standard cubic meter (g/dscm) (0.1 grains per dry standard cubic foot (gr/dscf)). The testing did not include measurements of HCl emissions. The system can be designed to discharge directly to a sewer if available or can include a spray dryer (*i.e.*, evaporator) to eliminate the liquid waste.

B. What Are the Affected Sources?

The existing affected source, which is the portion of each source in the category for which we are setting emission standards, is any existing tunnel kiln with a design capacity equal to or greater than 9.07 Mg/hr (10 tph) of fired product. Such tunnel kilns may be fired by natural gas or other fuels, including sawdust. Sawdust firing typically involves the use of a sawdust dryer because sawdust typically is purchased wet and needs to be dried before it can be used as fuel. Consequently, some sawdust-fired tunnel kilns have two process streams, including: a process stream that exhausts directly to the atmosphere or to an APCD, and a process stream in which the kiln exhaust is ducted to a sawdust dryer where it is used to dry sawdust before being emitted to the atmosphere.

Today's proposed rule focuses on those process streams from existing tunnel kilns that exhaust directly to the atmosphere or to an APCD. For existing tunnel kilns at or above the threshold design capacity that do not have sawdust dryers, the kiln exhaust process stream (i.e., the only process stream) is subject to the requirements of today's proposed rule. In accordance with CAA section 112(d)(1), we have divided tunnel kilns that duct exhaust to sawdust dryers into two classes for purposes of regulation. For existing tunnel kilns at or above the threshold design capacity that duct exhaust to sawdust dryers prior to July 22, 2002, only the process stream that is emitted directly to the atmosphere or to an APCD is subject to the requirements of today's proposed rule; any process stream from such kilns that is ducted to a sawdust dryer is not subject to those requirements.

By contrast, for existing tunnel kilns at or above the threshold design capacity that first duct exhaust to sawdust dryers on or after July 22, 2002, all of the exhaust (i.e., both the process stream that is emitted directly to the atmosphere or to an APCD and the process stream that is ducted to a sawdust dryer) is subject to the same level of control requirement as a new tunnel kiln. It is important to regulate all of the exhaust from this subset of existing tunnel kilns in order to prevent existing tunnel kilns that do not duct exhaust to sawdust dryers prior to July 22, 2002 from circumventing the control requirements of today's proposed rule by ducting to sawdust dryers. It also makes sense to subject all of the exhaust from kilns that first duct exhaust to sawdust dryers on or after July 22, 2002 to the requirements of today's proposed rule because these sources, like new sources, have options for controlling their emissions that are not as readily available to existing sources. Thus, the cost of requiring MACT for sources that choose to first duct kiln exhaust to a sawdust dryer on or after July 22, 2002 is considered reasonable.

In addition, each new or reconstructed tunnel kiln is an affected source, regardless of design capacity, and all process streams from new or reconstructed tunnel kilns are subject to the requirements of today's proposed rule. A source is a new affected source if construction began after July 22, 2002. An affected source is reconstructed if the criteria defined in § 63.2 are met. An affected source is existing if it is not new or reconstructed.

An existing tunnel kiln with a federally enforceable permit condition that restricts kiln operation to less than 9.07 Mg/hr (10 tph) of fired product on a 30-day rolling average basis is not subject to the requirements of today's proposed rule. Kilns that are used exclusively for research and development (R&D) and not used to manufacture products for commercial sale are not subject to the requirements of today's proposed rule. Finally, kilns that are used exclusively for setting glazes on previously fired products are not subject to the requirements of today's proposed rule.

C. When Must I Comply With the Proposed Rule?

Existing affected sources must comply within 3 years of [DATE OF PUBLICATION OF THE FINAL RULE IN THE **Federal Register**]. New or reconstructed affected sources with an initial startup before [DATE OF PUBLICATION OF THE FINAL RULE IN THE **Federal Register**] must comply no later than [Date of Publication of the Final Rule in the **Federal Register**]. New or reconstructed affected sources with an initial startup after [Date of Publication of the Final Rule in the **Federal Register**] must comply upon initial startup. Existing area sources that subsequently become major sources have 3 years from the date they become major sources to come into compliance. Any portion of existing facilities that become new or reconstructed major sources and any new or reconstructed area sources that become major sources must be in compliance upon initial startup.

D. What Are the Emission Limits?

Today's proposed rule includes emission limits in the form of production-based mass emission limits and percent reduction requirements. In establishing the HAP emission limits, we selected PM as a surrogate for HAP metals (including mercury in particulate form). Today's proposed rule proposes HF, HCl, and PM emission limits for existing, new, and reconstructed affected sources at BSCP manufacturing facilities.

If you own or operate an existing tunnel kiln with a design capacity equal to or greater than 9.07 Mg/hr (10 tph) or a new or reconstructed tunnel kiln, regardless of capacity, you would be required to meet an HF emission limit of 0.014 kilogram per megagram (kg/Mg) (0.027 pound per ton (lb/ton)) of product or reduce uncontrolled HF emissions by at least 95 percent for affected process streams. You would be required to meet an HCl emission limit of 0.019 kg/Mg (0.037 lb/ton) of product or reduce uncontrolled HCl emissions by at least 90 percent. You would be required to meet a PM emission limit of 0.06 kg/Mg (0.12 lb/ton) of product.

E. What Are the Operating Limits?

In addition to the emission limits, today's proposed rule includes operating limits that would apply to APCD used to comply with the proposed rule. The operating limits require you to maintain certain process or APCD parameters within levels

established during performance tests. Each facility affected by the proposed rule would be required to prepare, implement, and revise, as necessary, an operation, maintenance, and monitoring (OM&M) plan. The OM&M plan generally specifies the operating parameters that will be monitored; the frequency that parameter values will be determined; the limits for each parameter; procedures for proper operation and maintenance of process units, APCD, and monitoring equipment; procedures for responding to parameter deviations; and procedures for documenting compliance.

We have established operating limits for DIFF (dry lime injection fabric filters), DLS/FF (dry lime scrubbers/fabric filters), and WS (wet scrubbers). If you operate a DIFF or DLS/FF, you would be required to initiate corrective action within 1 hour of a bag leak detection system alarm and complete corrective actions according to your OM&M plan, operate and maintain the fabric filter such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month reporting period, and maintain the average fabric filter inlet temperature for each 3-hour block period at or below the average temperature, plus 14°C (25°F), established during your performance test. You would be required to maintain free-flowing lime in the feed hopper or silo and to the APCD at all times for continuous injection systems and maintain the feeder setting at or above the level established during your performance test. If you operate a DLS/FF, you would be required to maintain the average water injection rate for each 3-hour block period at or above the level established during your performance test.

If you operate a WS (wet scrubber), you would be required to maintain the average scrubber pressure drop, the average scrubber liquid pH, the average scrubber liquid flow rate, and the average chemical addition rate, if applicable, for each 3-hour block period at or above the average values established during your performance test.

If you own or operate an affected source equipped with an alternative APCD or technique not listed in the proposed rule, you would establish operating limits for the appropriate operating parameters subject to prior written approval by the Administrator as described in 40 CFR 63.8(f). You would be required to submit a request for approval of alternative monitoring procedures that includes a description of the alternative APCD or technique, the type of monitoring device or procedure that would be used, the appropriate operating parameters that would be monitored, and the frequency that the operating parameter values would be determined and recorded. You would establish site-specific operating limits during your performance test based on the information included in the approved alternative monitoring procedures request. You would be required to install, operate, and maintain the parameter monitoring system for the alternative APCD or technique according to your OM&M plan. If the Administrator determines that parameter monitoring cannot assure continuous compliance, a continuous emission monitoring system (CEMS) to measure HF and/or HCl emissions may be required.

If a facility applies for the approval of alternative monitoring procedures, including operating parameters, long-term APCD performance is an important consideration. Some of the new APCD that are being developed for controlling HF, HCl, and PM from brick kilns are similar to DIFF and DLS/FF, but they use different dry media, such as crushed limestone, sodium bicarbonate, and possibly other materials. One system uses powdered limestone as a primary sorbent, followed by lesser amounts of hydrated lime and sodium bicarbonate, each in a different reaction chamber. This type of system is designed to minimize sorbent costs by using the least expensive sorbent for primary control and using more expensive (and effective) sorbents to provide additional acid gas removal. The proposed operating limits for DIFF are appropriate for these DIFF-type systems, but the limits will require some modification to address specific design differences, such as the use of multiple sorbents.

We are soliciting comment on requiring the application of PM CEMS as a method to assure continuous compliance with the proposed PM emission limits for BSCP tunnel kilns. Specifically, we are soliciting comment on the relation of a PM CEMS requirement to the PM emission limits that are proposed today. This includes the level and averaging time of a CEMS-based PM emission limit and the methodology for deriving the limit from the available data for BSCP tunnel kilns.

We have continued to learn about the capabilities and performance of PM CEMS through performing and witnessing field evaluations and through discussions with our European counterparts. We believe there is sound evidence that PM CEMS should work on BSCP tunnel kilns.

We intend to propose revisions to the performance specification for PM CEMS (Performance Specification 11 (PS–11), 40 CFR part 60, appendix B, and Procedure 2, 40 CFR part 60, appendix F) in the near future with subsequent promulgation.

F. What Are the Performance Test and Initial Compliance Requirements?

We are requiring owners and operators of all affected sources to conduct an initial performance test using specified EPA test methods to demonstrate initial compliance with the emission limits. A performance test must be conducted before renewing your 40 CFR part 70 operating permit or at least every 5 years following the initial performance test, as well as when an operating limit parameter value is being revised. You would test at the outlet of the APCD and prior to any releases to the atmosphere for all affected sources. If meeting the percent reduction emission limits for HF or HCl, you would test at the APCD inlet. Under the proposed rule, you must conduct each test while operating at the maximum production level.

Under the proposed rule, you would be required to measure emissions of HF, HCl, and PM. You would measure HF and HCl emissions using EPA Reference Method 26A, ''Determination of Hydrogen Halide and Halogen Emissions from Stationary Sources-Isokinetic Method,'' 40 CFR part 60, appendix A, or any other alternative method that has been approved by the Administrator under 40 CFR 63.7(f) of the general provisions. The EPA Reference Method 26, ''Determination of Hydrogen Chloride Emissions from Stationary Sources,'' 40 CFR part 60, appendix A, may be used when no acid particulate matter (*e.g.,* HF or HCl dissolved in water droplets emitted by sources controlled by a wet scrubber) is present. Particulate matter emissions would be measured using EPA Reference Method 5, ''Determination of Particulate Emissions from Stationary Sources,'' 40 CFR part 60, appendix A, or any other approved alternative method.

To determine initial compliance with the production-based mass emission limits for HF, HCl, and PM, you would calculate the mass emissions per unit of production for each test run using the mass emission rates of HF, HCl, and PM and the production rate (on a fired-product basis) measured during your performance test. To determine initial compliance with any of the percent reduction emission limits, you would calculate the percent reduction for each test run using the mass emission rates, measured during your performance test,

of the specific HAP (HF or HCl) entering and exiting the APCD.

Prior to your initial performance test, you would be required to install the continuous monitoring system (CMS) (*e.g.,* continuous parameter monitoring system) equipment to be used to demonstrate continuous compliance with the operating limits. During your initial test, you would use the CMS to establish site-specific operating parameter values that represent your operating limits. If you operate a DIFF or DLS/FF, you would be required to continuously measure the temperature at the inlet to the fabric filter, determine and record the average temperatures during each 1-hour test run, and determine the 3-hour block average temperature. You would be required to ensure that lime in the feed hopper or silo and to the APCD is free-flowing at all times during the performance test, and you would be required to record the feeder setting for the three test runs. If the lime feed rate varies, you would be required to determine the average feed rate from the three test runs. You would be required to submit analyses and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems. Additionally, if you operate a DLS/FF, you would be required to continuously measure the water injection rate, determine and record the average water injection rate values for the three test runs, and determine the 3-hour block average water injection rate. If you operate a WS, you would be required to continuously measure the scrubber pressure drop, the scrubber liquid pH, the scrubber liquid flow rate, and the chemical addition rate (if applicable). For each WS parameter, you would be required to determine and record the average values for the three test runs and the 3-hour block average value.

G. What Are the Continuous Compliance Requirements?

The proposed standards require that you demonstrate continuous compliance with each emission limitation that applies to you. You would be required to follow the requirements in your OM&M plan and document conformance with your OM&M plan. You would be required to operate a CMS to monitor the operating parameters established during your initial performance test as described in the following paragraphs. The CMS would have to collect data at least every 15 minutes, and you would need to have at least three of four equally spaced data values (or at least 75 percent if you collect more than four data values per hour) per hour (not including startup, shutdown, malfunction, or out-of-control periods) to have a valid hour of data. You would have to operate the CMS at all times when the process is operating. You would also have to conduct proper maintenance of the CMS, including inspections, calibrations, and validation checks, and maintain an inventory of necessary parts for routine repairs of the CMS. Using the recorded readings, you would calculate and record the 3-hour block average values of each operating parameter. To calculate the average for each 3-hour averaging period, you must have at least 75 percent of the recorded readings for that period (not including startup, shutdown, malfunction, or out-of-control periods).

For DIFF and DLS/FF systems, you would have to continuously maintain the 3-hour block average temperature at the fabric filter inlet at or below the average temperature, plus 14°C (25°F), established during your performance test. You would have to maintain free-flowing lime in the feed hopper or silo and to the APCD at all times. If lime is found not to be free flowing via the output of a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system, or other system, you would have to promptly initiate and complete corrective actions according to your OM&M plan. You would also have to maintain the feeder setting at or above the level established during your performance test and record the feeder setting once each shift. You would have to initiate corrective action within 1 hour of a bag leak detection system alarm and complete corrective actions according to your OM&M plan. You would also have to operate and maintain the fabric filter such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time would be counted. If corrective action is required, each alarm would be counted as a minimum of 1 hour, and if you take longer than 1 hour to initiate corrective action, the alarm time would be counted as the actual amount of time taken to initiate corrective action.

Additionally, for DLS/FF, you would have to continuously maintain the 3-hour block average water injection rate at or above the minimum value established during your performance test. For WS, you would have to continuously maintain the 3-hour block averages for scrubber pressure drop, scrubber liquid pH, scrubber liquid flow rate, and chemical addition rate (if applicable) at or above the minimum values established during your performance test.

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

We are requiring owners and operators of all affected sources to submit initial notifications, notifications of performance tests, and notifications of compliance status by the specified dates in the proposed rule, which may vary depending on whether the affected source is new or existing. In addition to the information specified in 40 CFR 63.9(h)(2)(i), you would be required to include the following in your notification of compliance status: (1) The operating limit parameter values established for each affected source (with supporting documentation) and a description of the procedure used to establish the values, and (2) analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems.

We are requiring owners and operators of all affected sources to submit semiannual compliance reports containing statements and information concerning emission limitation deviations, out-of-control CMS, and periods of startup, shutdown, or malfunction when actions consistent with your approved startup, shutdown, and malfunction plan (SSMP) were taken. In addition, if you undertake an action that is inconsistent with your approved SSMP, then you would be required to submit a startup, shutdown, and malfunction report within 2 working days of starting such action and within 7 working days of ending such action.

We are requiring owners and operators of all affected sources to maintain records for at least 5 years from the date of each record. You must retain the records onsite for at least the first 2 years but may retain the records offsite for the remaining 3 years. You would be required to keep a copy of each notification and report, along with supporting documentation. You would be required to keep records related to the following: (1) Records of startup, shutdown, or malfunction; (2) records of performance tests; (3) records to show continuous compliance with each emission limitation; (4) records of each bag leak detection system alarm, including the time of the alarm, the time corrective action was initiated and completed, and a description of the cause of the alarm and the corrective action taken; (5) records of each

operating limit parameter value deviation, including the date, time, and duration of the deviation, a description of the cause of the deviation and the corrective action taken, and whether the deviation occurred during a period of startup, shutdown, or malfunction; (6) records of production rate; (7) records for any approved alternative monitoring or test procedures; and (8) current copies of your SSMP and OM&M plan, including any revisions, with records documenting conformance.

III. Summary of Environmental, Energy, and Economic Impacts for the Proposed Brick and Structural Clay Products Manufacturing NESHAP

A. What Are the Air Quality Impacts?

At the current level of control and 1996 production levels, nationwide emissions of HAP from the 169 BSCP facilities estimated to be major sources are about 5,700 Mg/yr (6,300 tpy). Under the proposed rule, it is assumed that DIFF will be installed on 81 tunnel kilns with production capacities equal to or greater than 9.07 Mg (10 tph) (that currently are not controlled with a DIFF, DLS/FF, or WS). This would result in an estimated reduction in nationwide HAP emissions of 2,500 Mg/yr (2,800 tpy). We estimated the impacts based on DIFF as the control technology because DIFF costs provided a conservative cost basis for the economic analyses. Based on available information on wet scrubbers, wet scrubbers achieve similar emissions reductions to DIFF, while compliance costs may be significantly less than those associated with DIFF, depending on the wastewater disposal options available to each facility.

Hydrogen fluoride emissions account for approximately 60 percent of the baseline HAP emissions. Hydrogen chloride emissions account for approximately 40 percent, with HAP metals comprising less than 1 percent of the baseline HAP emissions. Estimated nationwide emissions of HF, HCl, and HAP metals from existing major source BSCP facilities at the current level of control are 3,400 Mg/yr (3,700 tpy), 2,300 Mg/yr (2,500 tpy), and 62 Mg/yr (68 tpy), respectively. Implementing the rule as proposed would reduce nationwide HF emissions from existing tunnel kilns by about 1,500 Mg/yr (1,700 tpy), and HCl would be reduced by 1,000 Mg/yr (1,100 tpy). Emissions of HAP metals would be reduced by 24 Mg/yr (27 tpy). Implementing the rule as proposed also would reduce PM and SO_2 emissions by 1,300 Mg/yr (1,400 tpy) and 3,400 Mg/yr (3,800 tpy), respectively.

To project air quality impacts for new sources, we assumed that three large model tunnel kilns (each with a 15 tph capacity), equipped with DIFF, would begin operation at the beginning of the first year following promulgation of the rule as proposed. We estimate that by implementing the rule as proposed, HF emissions from new sources would be reduced by 96 Mg/yr (106 tpy), HCl emissions would be reduced by 65 Mg/yr (72 tpy), and HAP metals emissions would be reduced by 1.6 Mg/yr (1.8 tpy). We also estimate that PM and SO_2 emissions from the new kilns would be reduced by 88 Mg/yr (97 tpy) and 230 Mg/yr (250 tpy), respectively.

Secondary air impacts associated with the proposed BSCP rule are direct impacts that result from the operation of any new or additional APCD. The generation of electricity required to operate the APCD on new and existing kilns will result in 32 tpy of nitrogen oxides (NO_X) emissions in the first year following promulgation of the rule as proposed. The electricity was assumed to be generated by natural gas-fired turbines.

B. What Are the Water and Solid Waste Impacts?

Because compliance with the proposed rule is based on the use of DIFF, no water pollution impacts are estimated. However, facilities will have the option of using wet scrubbers. Facilities that use wet scrubbers would have several options for disposing of wastewater, including: (1) Using an evaporator and disposing of solid waste, (2) using scrubber blowdown water as process water (this option is currently being studied within the industry and may or may not be possible at all brick plants), and (3) disposing of scrubber blowdown directly to a sewer system (this option is available to some facilities). Because of the various scenarios and considerable uncertainty, we did not attempt to estimate overall wastewater impacts. Based on available information, each scrubber-controlled kiln could generate as little as zero or as much as about 5 million gallons per year of waste water (based on a 10 gallon per minute scrubber blowdown, which is the maximum permitted amount in the industry). The solid waste impacts discussed below may be overstated since it is likely that some facilities will use wet scrubbers. However, wet scrubbers may be equipped with spray dryers to eliminate wastewater (and create solid waste).

The solid waste disposal impacts that result from the use of DIFF include the disposal of the spent lime (or other sorbent) that is injected into the kiln exhaust stream and subsequently captured by a fabric filter. We calculated the solid waste by taking the difference between the amount of lime injected into the system and the amount of reacted lime, and adding the amount of reaction products. Stoichiometric ratios of 1.0 to 2.0 have been reported for the DIFF and DLS/FF in use in the brick manufacturing industry. The average stoichiometric ratio of 1.35 was used in this analysis. Implementing the rule as proposed would result in an increase in solid waste by 28,600 Mg/yr (31,500 tpy).

To project solid waste impacts for new sources, we assumed that three large model tunnel kilns, equipped with DIFF, would begin operation at the beginning of the first year following promulgation of the rule as proposed. We estimate that implementing the rule as proposed would result in the generation of 1,230 Mg/yr (1,360 tpy) of solid waste from new sources.

C. What Are the Energy Impacts?

Energy impacts consist of the electricity needed to operate the DIFF. Electricity requirements are driven primarily by the size of the fan needed in the APCD. We estimated the increase in electricity consumption that would result from implementation of the rule as proposed to be 254 terajoules per year (242 billion British thermal units (Btu) per year).

To project energy impacts for new sources, we assumed that three large model tunnel kilns, equipped with DIFF, would begin operation at the beginning of the first year following promulgation of the rule as proposed. We estimate the increase in energy consumption that would result from implementation of the rule as proposed to be 10.2 terajoules per year (9.7 billion Btu per year) for new sources.

D. Are There Any Additional Environmental and Health Impacts?

Reducing HAP emissions under the proposed rule would lower occupational HAP exposure levels. The operation of APCD may increase occupational noise levels in the facilities that do not control HAP emissions.

The HAP controls that are likely to be installed under the proposed rule would provide control of SO_2 and PM emissions from BSCP kilns. We estimate that SO_2 emissions from existing kilns would be reduced by 3,400 Mg/yr (3,800 tpy) and PM emissions from existing kilns would be reduced by 1,300 Mg/yr (1,400 tpy). We also estimate that SO_2 and PM emissions from projected new kilns would be reduced by 230 Mg/yr

(250 tpy) and 88 Mg/yr (97 tpy), respectively.

E. What Are the Cost Impacts?

For existing sources, nationwide total capital costs to implement the rule as proposed are estimated at $85 million, with total annualized costs of $36 million. The capital costs include the purchase and installation of DIFF and monitoring equipment on 81 existing tunnel kilns with design capacities equal to or greater than 9.07 Mg/hr (10 tph). The annualized costs include annualized capital costs of the control and monitoring equipment, operation and maintenance expenses, emission testing costs, and recordkeeping and reporting costs associated with installing and operating these 81 DIFF.

To project costs for new sources, we assumed that three large model tunnel kilns, equipped with DIFF, would begin operation at the beginning of the first year following promulgation of the rule as proposed. We estimate the capital costs associated with implementation of the rule as proposed to be $3.4 million for these three new sources. The capital cost of a DIFF corresponds to about 6 percent of the cost of a typical new plant, including a new mill room and kiln (a typical plant expansion would likely include a new mill room and kiln, but may not include other equipment such as raw material processing equipment). We estimate the annualized costs associated with implementation of the rule as proposed to be $1.41 million per year for new sources in the first year following promulgation of the rule as proposed.

We calculated the cost estimates using cost algorithms that are based on procedures from EPA's OAQPS Control Cost Manual (EPA 450/3–90–006, January 1990) and cost information provided by the BSCP industry. We estimated costs by developing model process units that correspond to the various sizes of kilns found at BSCP manufacturing facilities and assigning the model process units to each facility based on the kiln sizes at each facility. The facility costs were summed to determine total industry costs. Additional information on the model process units and cost estimates is included in docket A–99–30.

F. How Can We Reduce the Cost of the Proposed Rule?

As described elsewhere in this preamble, we have made every effort in developing the proposal to minimize the cost to the regulated community and allow maximum flexibility in compliance options consistent with our statutory obligations. However, we recognize that the proposal may still require some facilities to take costly steps to further control emissions even though their emissions may not result in exposures which could pose an excess individual lifetime cancer risk greater than one in one million or which exceed thresholds determined to provide an ample margin of safety for protecting public health and the environment from the effects of hazardous air pollutants. We are, therefore, specifically soliciting comment on whether there are further ways to structure the proposed rule to focus on the facilities which pose significant risks and avoid the imposition of high costs on facilities that pose little risk to public health and the environment.

In connection with another rulemaking, representatives of the plywood and composite wood products industry provided EPA with descriptions of three mechanisms that they believed could be used to implement more cost-effective reductions in risk. The docket for the plywood and composite wood products rule contains ''white papers'' prepared by that industry that outline their proposed approaches (See Docket Number A–98–44.) We welcome public comment on these approaches. We believe that two of the three suggested approaches warrant further consideration. We believe they could be used to focus regulatory controls on facilities with significant risks and avoid the imposition of high costs on facilities that pose little risk to public health or the environment. One of the approaches, an applicability cutoff for threshold pollutants, would be implemented under the authority of CAA section 112(d)(4); the other approach, subcategorization and delisting, would be implemented under the authority of CAA sections 112(c)(1) and 112(c)(9). The EPA requests comment on the technical and legal viability of these approaches, as well as any modifications to these approaches that commenters may wish to suggest. The maximum achievable control technology, or MACT, program outlined in CAA section 112(d) is intended to reduce emissions of HAP through the application of MACT to major sources of toxic air pollutants. Section 112(c)(9) is intended to allow EPA to avoid setting MACT standards for categories or subcategories of sources that pose little risk to public health and the environment. The EPA requests comment on whether the proposals described here appropriately rely on these provisions of CAA section 112. While both approaches focus on assessing the inhalation exposures of HAP emitted by a source, EPA specifically requests comment on the appropriateness and necessity of extending these approaches to account for non-inhalation exposures of certain HAP which may deposit from the atmosphere after being emitted into the air or to account for adverse environmental impacts. In addition to the specific requests for comment noted in this section, we are also interested in any information or comment concerning technical limitations, environmental and cost impacts, compliance assurance, legal authority, and implementation relevant to the approaches. We also request comment on appropriate practicable and verifiable methods to ensure that sources' emissions remain below levels that protect public health and the environment. We will evaluate all comments before determining whether either of the two approaches will be included in the final rule.

Applicability Cutoffs for Threshold Pollutants Under Section 112(d)(4) of the CAA

The first approach is an ''applicability cutoff'' for threshold pollutants that is based on EPA's authority under CAA section 112(d)(4). A ''threshold pollutant'' is one for which there is a concentration or dose below which adverse effects are not expected to occur over a lifetime of exposure. For such pollutants, section 112(d)(4) allows EPA to consider the threshold level, with an ample margin of safety, when establishing emissions standards. Specifically, section 112(d)(4) allows EPA to establish emission standards that are not based upon the maximum achievable control technology (MACT) specified under section 112(d)(2) for pollutants for which a health threshold has been established. Such standards may be less stringent than MACT. Furthermore, EPA has interpreted 112(d)(4) to allow us to avoid further regulation of categories of sources that emit only threshold pollutants, if those emissions result in ambient levels that do not exceed the threshold, with an ample margin of safety.[1] Industry's suggested approach interprets this provision to allow us to exempt individual facilities that can demonstrate that their emissions will not result in air concentrations above the threshold levels, with an ample margin of safety, even if the category is otherwise subject to MACT.

[1] See 63 FR 18754, 18765–66 (April 15, 1998) (Pulp and Paper Combustion Sources Proposed NESHAP).

For facilities to avoid being subject to the MACT standard, EPA would have to determine that a health effects threshold exists for each pollutant emitted by the brick and structural clay products sources at the facility and that the ambient impacts of those emissions do not exceed the threshold levels, with an ample margin of safety. The common approach for evaluating the potential hazard of a threshold air pollutant is to calculate a ''hazard quotient'' by dividing the pollutant's inhalation exposure concentration (often assumed to be equivalent to its estimated concentration in air at a location where people could be exposed) by the pollutant's inhalation Reference Concentration (RfC). An RfC is defined as an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure that, over a lifetime, likely would not result in the occurrence of adverse health effects in humans, including sensitive individuals. The EPA typically establishes an RfC by applying uncertainty factors to the critical toxic effect derived from the lowest- or no-observed-adverse-effect level of a pollutant.[2] A hazard quotient less than one means that the exposure concentration of the pollutant is less than the RfC. A hazard quotient greater than one means the exposure concentration of the pollutant is greater than the RfC. For the determinations discussed herein, EPA would generally plan to use RfC values contained in EPA's toxicology database, the Integrated Risk Information System (IRIS). When a pollutant does not have an approved RfC in IRIS, or when a pollutant is a carcinogen, EPA would have to determine whether a threshold exists based upon the availability of specific data on the pollutant's mode or mechanism of action, potentially using a health threshold value from an alternative source such as the Agency for Toxic Substances and Disease Registry (ATSDR) or the California Environmental Protection Agency (CalEPA).

In the past, EPA routinely treated carcinogens as non-threshold pollutants. The EPA recognizes that advances in risk assessment science and policy may affect the way EPA differentiates between threshold and non-threshold HAP. The EPA's draft Guidelines for Carcinogen Risk Assessment[3] suggest that carcinogens be assigned non-linear dose-response relationships where data warrant. Moreover, it is possible that dose-response curves for some pollutants may reach zero risk at a dose greater than zero, creating a threshold for carcinogenic effects. It is possible that future evaluations of the carcinogens emitted by this source category would determine that one or more of the carcinogens in the category is a threshold carcinogen or is a carcinogen that exhibits a non-linear dose-response relationship but does not have a threshold. The EPA requests comment on how we should consider the state of the science as it relates to legislative intent when making determinations under section 112(d)(4). In addition, EPA requests comment on whether there is a level of emissions of a carcinogenic HAP that could be considered insignificant enough to allow a facility to use the approaches discussed in this section.

As suggested above, in order for EPA to establish an applicability cutoff under section 112(d)(4), EPA would need to define ambient air exposure concentration limits for the threshold pollutants involved. There are several factors to consider when establishing such concentrations. First, we would need to ensure that the concentrations that would be established would protect public health with an ample margin of safety. As discussed above, the approach EPA commonly uses when evaluating the potential hazard of a threshold air pollutant is to calculate the pollutant's hazard quotient. Further, current EPA guidance suggests that when exposures to mixtures of pollutants are being evaluated, the risk assessor should calculate a hazard index by summing the individual hazard quotients for those pollutants in the mixture that affect the same target organ or system by the same mechanism[4].

As suggested by CAA legislative history, we would need to ensure that the analysis considers the total ambient air concentrations of all the emitted HAP to which the public is exposed[5]. Our goal would thus be to establish a hazard index limit for the mixture of pollutants from a source which would recognize the potential for other sources to contribute to exposure. Consistent with this goal, there are at least several options for establishing a hazard index limit for the section 112(d)(4) analysis. One option is to allow the hazard index posed by all threshold HAP emitted by brick and structural clay products sources at the facility to be no greater than one. This approach assumes that no additional threshold HAP exposures would be anticipated from other sources in the vicinity or through other routes of exposure (*i.e.,* through ingestion).

A second option is to adopt an approach similar to that used by EPA's Office of Water (OW) in establishing drinking water standards. Using this approach, we would allow that up to a certain percentage of an individual's total exposure to all threshold HAP could be contributed by emissions from brick and structural clay products sources at the facility, assuming that the rest of the individual's exposure results from other sources and through other media. In the absence of adequate exposure data, the drinking water program usually assumes that drinking water can account for up to 20 percent of an individual's exposure to an individual pollutant, assuming that the remaining 80 percent of an individual's exposure comes from other sources, such as diet[6]. The adaptation of this approach for the purposes of conducting an analysis to support a section 112(d)(4) determination is to assume that an individual's exposure to the mixture of threshold HAP emitted from the brick and structural clay products sources at a facility accounts for 20 percent of an individual's total exposure to those HAP and that other sources account for the remaining 80 percent of the exposure. This means that exposures to the mixture of HAP from brick and structural clay products sources would not be allowed to exceed a hazard index limit of 0.2.

A third option is to use available data (from scientific literature or EPA studies, for example) to determine background concentrations of HAP, possibly on a national or regional basis. These data would be used to estimate the exposures to HAP from non-brick and structural clay products sources in the vicinity of an individual facility. For example, the EPA's National-scale Air Toxics Assessment (NATA)[7] and

[2] ''Methods for Derivation of Inhalation Reference Concentrations and Applications of Inhalation Dosimetry.'' EPA–600/8–90–066F, Office of Research and Development, USEPA, October 1994.

[3] ''Draft Revised Guidelines for Carcinogen Risk Assessment.'' NCEA–F–0644. USEPA, Risk Assessment Forum, July 1999. pp 3–9ff. *http://www.epa.gov/ncea/raf/pdfs/cancer_gls.pdf*

[4] ''Supplementary Guidance for Conducting Health Risk Assessment of Chemical Mixtures. Risk Assessment Forum Technical Panel'', EPA/630/R–00/002. USEPA, August 2000. *http://www.epa.gov/nceawww1/pdfs/chem_mix/chem_mix_08_2001.pdf*

[5] Senate Debate on Conference Report (October 27, 1990), reprinted in ''A Legislative History of the Clean Air Act Amendments of 1990,'' Comm. Print S. Prt. 103–38 (1993) (''Legis. Hist.'') at 868.

[6] ''Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health (2000)'', Technical Support Document Volume 1: Risk Assessment''. EPA–822–B–00–005. Office of Science and Technology, Office of Water, USEPA, October 2000. *http://www.epa.gov/waterscience/humanhealth/method/complete.pdf*

[7] See *http://www.epa.gov/ttn/atw/nata*

ATSDR's Toxicological Profiles [8] contain information about background concentrations of some HAP in the atmosphere and other media. The combined exposures from brick and structural clay products sources and from other sources (as determined from the literature or studies) would then not be allowed to exceed a hazard index limit of one. The EPA requests comment on the appropriateness of setting the hazard index limit at one for such an analysis.

As an alternative to the third option, a fourth option is to allow facilities to estimate or measure their own facility-specific background HAP concentrations for use in their analysis. With regard to the third and fourth options, the EPA requests comment on how these analyses could be structured. Specifically, EPA requests comment on how the analyses should take into account background exposure levels from air, water, food and soil encountered by the individuals exposed to brick and structural clay products emissions. In addition, we request comment on how such analyses should account for potential increases in exposures due to a new or increased use of a HAP, or the effect of other nearby sources that release HAP. EPA requests comment on the feasibility and scientific validity of each of these or other approaches.

Finally, EPA requests comment on how we should implement the section 112(d)(4) applicability cutoffs, including appropriate mechanisms for applying cutoffs to individual facilities. For example, would the Title V permit process provide an appropriate mechanism? Establishing that a facility meets the cutoffs established under section 112(d)(4) will necessarily involve combining estimates of pollutant emissions with air dispersion modeling to predict exposures. The EPA envisions that we would promote a tiered analytical approach for these determinations. A tiered analysis involves making successive refinements in modeling methodologies and input data to derive successively less conservative, more realistic estimates of pollutant concentrations in air and estimates of risk. As a first tier of analysis, EPA could develop a series of simple look-up tables based on the results of air dispersion modeling conducted using conservative input assumptions. By specifying a limited number of input parameters, such as stack height, distance to property line, and emission rate, a facility could use these look-up tables to determine easily whether the emissions from their sources might cause a hazard index limit to be exceeded. A facility that does not pass this initial conservative screening analysis could implement increasingly more site-specific but more resource-intensive tiers of analysis using EPA-approved modeling procedures, in an attempt to demonstrate that their facility does not exceed the hazard index limit. The EPA's guidance could provide the basis for conducting such a tiered analysis.[9] The EPA requests comment on methods for constructing and implementing a tiered analytical approach for determining applicability of the section 112(d)(4) criterion to specific brick and structural clay products sources. It is also possible that ambient monitoring data could be used to supplement or supplant the tiered modeling approach described above, although it is envisioned that the appropriate monitoring to support such a determination could be extensive. The EPA requests comment on the appropriate use of monitoring in the determinations described above.

Subcategory Delisting Under Section 112(c)(9)(B) of the CAA

EPA is authorized to establish categories and subcategories of sources, as appropriate, pursuant to CAA section 112(c)(1), in order to facilitate the development of MACT standards consistent with section 112 of the CAA. Further, section 112(c)(9)(B) allows EPA to delete a category (or subcategory) from the list of major sources for which MACT standards are to be developed when the following can be demonstrated: (1) In the case of carcinogenic pollutants, that ''no source in the category * * * emits [carcinogenic] air pollutants in quantities which may cause a lifetime risk of cancer greater than one in one million to the individual in the population who is most exposed to emissions of such pollutants from the source'; (2) in the case of pollutants that cause adverse noncancer health effects, that ''emissions from no source in the category or subcategory * * * exceed a level which is adequate to protect public health with an ample margin of safety''; and (3) in the case of pollutants that cause adverse environmental effects, that ''no adverse environmental effect will result from emissions from any source.''

Given these authorities and the suggestions from the white paper prepared by representatives of the plywood and composite wood products industry (*see* Docket Number A–98–44), EPA is considering whether it would be possible to establish a subcategory of facilities within the larger brick and structural clay products industry category that would meet the risk-based criteria for delisting. Since each facility in such a subcategory would be a low-risk facility (*i.e.,* if each met these criteria), the subcategory could be delisted in accordance with section 112(c)(9), thereby limiting the costs and impacts of the proposed MACT rule to only those facilities that do not qualify for subcategorization and delisting. Facilities seeking to be included in the delisted subcategory would be responsible for providing all data required to determine whether they are eligible for inclusion. Facilities that could not demonstrate that they are eligible to be included in the low-risk subcategory would be subject to MACT and possible future residual risk standards. Although EPA currently is not convinced that subcategorization based on risk is possible within the statutory constraints of the CAA, EPA solicits comment on implementing a risk-based approach for establishing subcategories of brick and structural clay products facilities.

Another approach would be to define a subcategory of facilities within the brick and structural clay products source category based upon technological differences, such as differences in production rate, emission vent flow rates, overall facility size, emissions characteristics, processes, or air pollution control device viability. The EPA requests comment on how we might establish brick and structural clay products subcategories based on these, or other, source characteristics. If it could then be determined that each source in this technologically-defined subcategory presents a low risk to the surrounding community, the subcategory could then be delisted in accordance with 112(c)(9). The EPA requests comment on the concept of identifying technologically-based subcategories that may include only low-risk facilities within the brick and structural caly products source category.

G. What Are the Economic Impacts?

We conducted a detailed economic impact analysis to determine the market- and industry-level impacts associated with the proposed rule. The compliance costs of today's proposed rule are expected to increase the price of brick and reduce their domestic production and consumption. We project the price of brick to increase by

[8] See *http://www.atsdr.cdc.gov/toxpro2.html*

[9] ''A Tiered Modeling Approach for Assessing the Risks due to Sources of Hazardous Air Pollutants.'' EPA–450/4–92–001. David E. Guinnup, Office of Air Quality Planning and Standards, USEPA, March 1992.

just less than 2 percent and project no change in price for structural clay products. Domestic production of brick is expected to decline by close to 2 percent. In addition, foreign brick imports are estimated to increase while exports decrease, both by just under 2 percent. Since there is no expected change in the price of structural clay products, we predict no change in domestic production or foreign imports of structural clay products.

In terms of industry impacts, the brick producers are projected to experience a decrease in operating profits of about 18 percent, which reflects the compliance costs associated with brick production and the resulting reductions in revenues due to the increase in the price of brick and the reduced quantity purchased. Through the market impacts described above, the proposed rule would create both positive and negative financial impacts on facilities within the BSCP manufacturing industry. The majority of facilities, almost 68 percent, are expected to experience profit increases with the proposed rule; however, there are some facilities projected to lose profits (about 28 percent). Furthermore, the economic impact analysis indicates that of the 189 BSCP manufacturing facilities, two brick facilities are at risk of closure because of the proposed rule, while none of the structural clay products facilities are at risk to close.

Based on the market analysis, the annual social costs of the proposed rule are projected to be $34.5 million. This differs from the annual engineering costs of the proposed rule because the social costs account for producer and consumer behavior. These social costs are distributed across the many consumers and producers of brick. Since there are no price changes occurring in the structural clay products market, the social costs of the proposed rule are confined to the brick industry. The consumers of brick are expected to incur the $18.9 million in costs associated with the proposed rule, with domestic consumers bearing $18.8 million and foreign consumers bearing $0.1 million. Brick producers, in aggregate, are expected to bear the remaining $15.6 million annually in costs. Domestic producers incur $15.65 million while foreign producers gain $0.05 million annually.

We estimate that 15 new kilns will be built during the 5 years after promulgation of the rule as proposed. The total compliance costs associated with these kilns are projected to be less than 0.5 percent of the industry's value of shipments. The economic impact analysis estimated the impact of the proposed rule on these new sources through a sensitivity analysis. According to that analysis, it is projected that anywhere from three to six of these new kilns will be delayed in coming on-line in the BSCP manufacturing industry due to the proposed rule. Additional information is included in the economic impact analysis report located in docket A–99–30.

IV. Rationale for Selecting the Proposed Standards for Brick and Structural Clay Products Manufacturing

A. How Did We Select the Emission Sources and Pollutants That Will Be Regulated?

In the BSCP manufacturing industry, the most significant sources of HAP emissions are kilns, including continuous (tunnel and roller) kilns and periodic kilns. For this reason, the proposed rule covers both existing and new kilns at major source BSCP manufacturing facilities which meet the applicability criteria. Other sources of HAP emissions at BSCP manufacturing facilities are the raw material processing and handling equipment.

At the temperatures encountered in BSCP kilns, naturally occurring fluorides and chlorides found in the raw clays and shales that are used as raw materials are released to the atmosphere as HF and HCl. We estimate that most BSCP manufacturing facilities emit more than 9.07 Mg/yr (10 tpy) of HF and, therefore, are major sources as defined by the CAA. In addition, we estimate that many facilities are also major sources of HCl emissions. In addition to HF and HCl, all of the HAP metals (antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury (in particulate form), nickel, and selenium) listed in section 112(b) of the CAA have been detected in brick kiln exhaust. The HAP metals may emanate from trace quantities of metals found in raw materials, metallic body additives and surface coatings commonly used in the industry, or from the fuels fired in the kilns. Therefore, we propose to regulate HF, HCl, and HAP metals (using PM as a surrogate for HAP metals, including mercury in particulate form) emissions from BSCP kilns.

Particulate matter was selected as a surrogate for HAP metals that are emitted in particulate form because HAP metals are always expected to be present in PM from BSCP kilns, and the same control mechanisms that remove PM from the exhaust stream will also remove nonvolatile and semi-volatile HAP metals. Available data show that HAP metals constitute between 0.16 percent and 4.5 percent of PM emissions from BSCP kilns. The use of PM as a surrogate pollutant for HAP metals reduces the costs associated with compliance testing and monitoring because such testing and monitoring are necessary only for one PM emission limit, rather than for numerous emission limits for individual HAP metals.

B. How Did We Determine Subcategories?

Section 112(d)(1) of the CAA allows EPA to promulgate emission standards for either categories or subcategories of sources. Through subcategorization, we are able to define subsets of similar emission sources within a source category if differences in emissions characteristics, processes, APCD viability, or opportunities for pollution prevention exist within the source category. Upon initial consideration of the available information on the BSCP manufacturing industry, we determined that separate subcategories for periodic kilns and tunnel kilns were warranted for several reasons. First, periodic kilns are smaller than tunnel kilns (with lower production on an hourly basis, as well as accounting for only about 4 percent of total BSCP industry production). Second, periodic kilns are operated in batch cycles, whereas tunnel kilns operate continuously. Finally, to our knowledge, periodic kilns have not successfully been controlled using any of the currently available APCD, as have tunnel kilns, or through the use of low-HAP fuels or changes in raw materials or processes.

Following this initial subcategorization, we examined the potential for additional subcategories for tunnel kilns, including subcategorization based on kiln fuel and kiln size. We determined that because the HAP emissions from tunnel kilns primarily result from the raw materials rather than the kiln fuel, subcategorization by kiln fuel is not appropriate for BSCP tunnel kilns. We then considered subcategorization of tunnel kilns based on kiln size and, for the reasons discussed below, decided to propose two subcategories based on size.

A review of the available information regarding tunnel kilns showed that DIFF, DLS/FF, and WS, which we believe represent the best controls, generally are installed on kilns with design capacities greater than approximately 10 tph of fired product. However, in the absence of subcategorization of tunnel kilns based on size, the MACT floor for all existing tunnel kilns would be the level of control provided by DLA for all

pollutants. Specifically, the tunnel kiln subcategory (all tunnel kilns) includes 296 tunnel kilns that are located at major sources of HAP. The best-controlled 12 percent of these sources include 4 DIFF-controlled, 4 DLS/FF-controlled, 2 WS-controlled, 11 DLA-controlled and 15 uncontrolled kilns. The level of control that corresponds to the mean of the best-controlled 12 percent of these kilns is the 94th percentile level of control, which corresponds to the level of control provided by a DLA. As previously mentioned, we have several concerns about the long-term effectiveness of the DLA control technology and the degree to which we can assure continuous compliance for DLA-controlled kilns. First, long-term test data that demonstrate performance over the life of the sorbent are not available. This is important for these systems because the sorbent (limestone) is not continuously replaced with new sorbent, and we expect the performance of the systems to decrease as the sorbent is re-used and the ability of the sorbent to adsorb HF and HCl decreases. Second, representatives of DLA manufacturers and facilities that operate DLA have stated that not all limestone can effectively be used as a sorbent in a DLA. Because of these two issues, we have been unable to identify any type of parameter monitoring that could be used to assure continuous compliance. If parameter monitoring cannot be used, some type of CEMS would be required to assure continuous compliance with HF and HCl emission limits if DLA were considered as MACT control. The only potential option that we have identified for assuring continuous compliance is the installation and continuous operation of Fourier transform infrared spectroscopy (FTIR) monitoring systems. The costs associated with FTIR systems are considerable. Finally, DLA do not provide a mechanism for PM (and, therefore, metal HAP) removal and may actually create PM in some instances. For all of these reasons, we believe that DLA or equivalent controls would not represent an appropriate level of MACT control for BSCP kilns.

We also note that a rule that did not subcategorize tunnel kilns based on size would have considerable impacts on small businesses. In the absence of size-based subcategories, every existing tunnel kiln that is located at a major source of HAP would be required to install a DLA or equivalent control. We estimate that 151 of the 189 BSCP facilities, including 70 of 93 small business-owned facilities, would have to install at least one DLA or other equivalent APCD. In addition, two small business-owned BSCP facilities are estimated to incur monitoring, testing, and recordkeeping and reporting costs only. A total of 261 tunnel kilns, including 109 small business-owned kilns, would require the addition of controls to meet the requirements of a rule based on this approach. The 21 tunnel kilns that are currently equipped with DIFF, DLS/FF, WS, and DLA controls are estimated to incur only monitoring, testing, and recordkeeping and reporting costs. Fourteen tunnel kilns that duct all of the kiln exhaust to a sawdust dryer would not require controls. We estimate the total annualized cost to industry, under a regulatory approach that did not include size-based subcategories, to be $74 million, and the annualized cost to small business-owned facilities to be about $29 million.

We, therefore, concluded that subcategorizing tunnel kilns based on size would enable us to ease the burden on small businesses while fulfilling our obligations under the CAA and achieving substantial emissions reductions. Our analysis focused on subcategorization scenarios under which the MACT floor (for all pollutants) would be control with a DIFF, DLS/FF, WS, or equivalent control for a subset of tunnel kilns with design capacities equal to or greater than a specific size. The MACT floor for all pollutants for the remaining subset of kilns (those with capacities less than the specific size) would be ''no emissions reductions.'' To help select a design capacity upon which to base the subcategories, we examined the design capacities of the kilns controlled with a DIFF, DLS/FF, or WS. Our initial review of the available information showed that the smallest kiln controlled with a DIFF, DLS/FF, or WS had a design capacity of about 11 tph of fired product. We then examined the capacities of kilns owned by small and large businesses, which revealed a general trend of small businesses operating smaller kilns than large businesses. This trend was most pronounced at and below a capacity of about 10 tph. Using this information, we selected a design capacity of 10 tph as the basis for subcategorization. Under this scenario, 66 of the 77 small businesses (82 of 93 small business-owned facilities) would incur no costs for existing operations, and the total estimated cost to small businesses would be $7.2 million, compared to $29 million under the scenario that does not include size-based subcategories. Since the initial review, we have identified a new DIFF-controlled kiln with a design capacity just under 10 tph. Although this new controlled kiln is not included in the MACT floor calculations for existing sources (under lowest achievable emission rate (LAER) provisions in the CAA), the fact that it is controlled with a DIFF shows that control with a DIFF is feasible for similar-size kilns.

During the development of the proposed rule, representatives of the brick industry pointed out that impacts on small businesses (and the industry as a whole) could be further reduced by increasing the kiln design capacity upon which subcategories would be based to 13.3 tph. Upon examination of this suggestion, we determined that 13.3 tph is the highest capacity that would maintain DIFF, DLS/FF, WS, or equivalent control as the MACT floor. Subcategories based on a capacity of 13.3 tph minimize economic impacts on small and large businesses, but also minimize the HAP emissions reductions that would be achieved because the MACT controls would apply to fewer sources than a lower size cutoff. This suggestion from the brick industry representatives prompted us to examine the situation from the opposite perspective. Specifically, we determined a kiln design capacity that would maximize HAP emissions reductions by maximizing the number of sources that would be subject to the MACT controls. Based on the available information, the capacity that maximizes HAP emissions reductions is 7 tph. However, the small business impacts of subcategorization based on a 7 tph design capacity would be considerable. Table 2 of this preamble shows a summary of the estimated HAP emissions reductions and cost impacts for the various size-based subcategories that we examined.

TABLE 2.—IMPACTS OF POTENTIAL TUNNEL KILN SUBCATEGORIES

Design capacity [a]	Number of impacted facil.	Number of impacted small business facil.	Total annual cost, $\$ \times 10^6$	Total annual small business cost $\$ \times 10^6$	HAP reduction (tpy)
None [b]	160	72	74.1	29.4	4,200
7 tph	97	27	59.4	15.7	4,358
10 tph	59	11	35.7	7.17	2,827
13.3 tph	29	3	16.0	1.42	1,378

[a] Design capacity at or above which existing tunnel kilns would be subject to the requirements of the proposed rule.
[b] With no design capacity-based subcategories, the MACT floor would be a DLA, which is a less effective HAP control device. All existing tunnel kilns would be required to install DLA or equivalent controls under this scenario.

As shown in Table 2 of this preamble, while subcategorization based on a 7 tph design capacity provides the highest level of emissions reductions and subcategorization based on a 13.3 tph design capacity results in the lowest cost impacts, subcategorization based on a 10 tph design capacity provides significant environmental benefits while reducing the cost impacts on small businesses.

As a result of the analysis of possible subcategorization levels presented above, we are proposing subcategorization of existing tunnel kilns based on a 10 tph design capacity, which we believe is reasonable. We remain interested in information that will further inform our analysis and solicit comment on the appropriate design capacity-based subcategorization level. We are specifically interested in the following:

(1) Information regarding the applicability of DIFF, DLS/FF, WS, or equivalent control to kilns below 13 tph design capacity;

(2) Information about the health risks posed by emissions from kilns below 13 tph design capacity; and

(3) Any other information regarding the feasibility, costs, and benefits of implementing a particular subcategorization level.

C. How Did We Determine the MACT Floors for Existing Sources?

The CAA specifies that MACT standards be at least as stringent as the floor for the sources in the relevant source category or subcategory. It further specifies that we set standards for existing sources that are no less stringent than the average emission limitation achieved by the best performing 12 percent of existing sources (for which the Administrator has emissions information) where there are 30 or more sources in the category or subcategory. Our interpretation of the ''average emission limitation'' is that it is a measure of central tendency, such as the arithmetic average or the mean. If the mean is used when there are at least 30 sources, then the emission level achievable by the source and its APCD that is at the bottom of the top 6 percent of the best-performing sources (i.e., the 94th percentile) represents the MACT floor control level. The MACT floors for each subcategory are based on this interpretation.

After identifying the MACT floors for existing sources, we also consider control options more stringent than the MACT floor levels. The selected option may be more stringent than the MACT floor, but the control level must be achievable and reasonable in the Administrator's judgement considering cost, non-air quality health and environmental impacts, and energy requirements. The objective is to achieve the maximum degree of emissions reductions without imposing unreasonable impacts (*see* section 112(d)(2) of the CAA).

1. Existing Periodic Kilns

No existing periodic kiln is equipped with an APCD that has been demonstrated to control HAP emissions. In addition to APCD, we considered other possible MACT floors such as the use of low-HAP fuels or raw materials. However, because available data do not show increased HAP emissions based on fuel use, a MACT floor based on fuel type is not appropriate for these sources. In addition, low-HAP raw material use is not a viable MACT option because all facilities use local clays and shales to produce BSCP, and particular clays and shales are integral to those products. Changes in raw materials could change the end products. The procurement of low-HAP raw materials as a control measure is not done in the BSCP industry. After considering all of the MACT options, we determined that the MACT floor for existing periodic kilns is ''no emissions reductions,'' because we did not identify any means by which existing periodic kilns are currently reducing emissions. Because no APCD have been demonstrated to control HAP emissions, and we believe that low-HAP fuels or raw materials are not viable options, we found no beyond-the-floor options for existing periodic kilns. Therefore, we have determined that the control level for existing periodic kilns should be ''no emissions reductions.''

2. Existing Tunnel Kilns With Design Capacities Less Than 10 TPH

As discussed earlier, tunnel kilns may have more than one process stream, including the kiln exhaust process stream and the kiln/sawdust dryer exhaust process stream.

a. *Kiln Exhaust Process Stream.* For tunnel kilns with design capacities less than 10 tph of fired product, the available data show that three of the 199 kilns (1.5 percent) that are included in this subcategory are equipped with DLA. The best-controlled 12 percent of these kilns includes the three DLA-controlled kilns and 21 uncontrolled kilns. The 94th percentile level of control, or the mean of the best-controlled 12 percent, is ''no emissions reductions.'' In addition to APCD, we considered other possible MACT floors such as the use of low-HAP fuels or raw materials. However, because available data do not show increased HAP emissions based on fuel use, a MACT floor based on fuel type is not appropriate for these sources. In addition, low-HAP raw material use is not a viable MACT option because all facilities use local clays and shales to produce BSCP, and such local materials are integral to the end products that are manufactured. The procurement of low-HAP raw materials as a control measure is not done in the BSCP industry. Therefore, the MACT floor levels of HF, HCl, and PM control are ''no emissions reductions,'' because we did not identify any means by which tunnel kilns with design capacities less than 10 tph are currently reducing emissions from their kiln exhaust process streams that is sufficient to constitute a MACT floor.

We considered beyond-the-floor controls for kiln exhaust process streams from existing tunnel kilns with design capacities less than 10 tph. For these analyses, the costs of installing and operating DIFF on existing tunnel kilns with design capacities less than 10 tph, along with the associated emissions reductions and other impacts, were assessed. After analyzing all of the impacts of retrofitting the kiln exhaust process stream from each of 189 existing BSCP tunnel kilns (10 of the 199 kilns in the subcategory duct all kiln exhaust to a sawdust dryer and do not include a kiln exhaust process stream) with a design capacity less than 10 tph with a DIFF to control HAP emissions, we concluded that setting a standard reflecting this beyond-the-floor approach would be unreasonable at this time. Our analysis included an estimate of emissions reductions that would be achieved by this approach, secondary air impacts, non-air quality impacts, and cost impacts on the entire BSCP industry and on small businesses. Primary HAP air pollution impacts of the beyond-the-floor approach consist of the reduction of HF, HCl, and HAP metals emissions, which would be substantial. Specifically, the beyond-the-floor approach would reduce total HAP emissions from existing BSCP tunnel kilns with capacities less than 10 tph by 2,949 tpy, or 98.0 percent, from a baseline HAP emission level of 3,011 tpy. Particulate matter emissions reductions (PM is used as a surrogate for HAP metals), and co-control of SO_2 emissions (from the baseline level) also would result from the beyond-the-floor approach. The estimated baseline emissions and emissions reductions for the beyond-the-floor approach for tunnel kilns with capacities less than 10 tph are summarized in Table 3 of this preamble. Table 4 of this preamble shows a summary of the results of our evaluations of secondary air, solid waste, energy, and cost impacts for this approach. Using the emissions reductions estimates shown in Table 3 of this preamble and the beyond-the-floor cost presented in Table 4 of this preamble, the nationwide cost effectiveness of requiring tunnel kilns with capacities less than 10 tph to install DIFF controls is about $22,000 per ton of HAP removed. In addition, the costs of the beyond-the-floor approach are significantly higher than those of the floor level of control. Specifically, the cost of the beyond-the-floor approach is estimated to be $101 million for the BSCP industry, compared to $36 million under the floor approach. The cost of the beyond-the-floor approach for small businesses is estimated to be $39 million, compared to an estimated $7 million under the floor approach.

TABLE 3.—BASELINE EMISSIONS AND EMISSIONS REDUCTIONS FOR BEYOND-THE-FLOOR CONTROL OF BSCP TUNNEL KILNS WITH DESIGN CAPABILITIES LESS THAN 10 TPH

Pollutant	Baseline emissions, tpy	Emissions reductions, tpy	Percent reduction
HF	1,787	1,766	99
HCl	1,192	1,152	97
HAP metals	32	31.4	98
Total HAP	3,011	2,949	98
PM	1,688	1,651	98
SO_2	8,277	4,080	49

TABLE 4.—SUMMARY OF SECONDARY AIR, SOLID WASTE, ENERGY, AND COST IMPACTS FOR BEYOND-THE-FLOOR CONTROL OF BSCP TUNNEL KILNS WITH DESIGN CAPABILITIES LESS THAN 10 TPH

Type of impact	Beyond-the-floor impact	Comments
Secondary air: NO_X	55 tpy NO_X increase	Based on electricity provided by gas turbines.
Solid waste	34,900 tpy	Assumes facilities must dispose of all waste lime as solid waste.
Energy	423,000 MMBtu/yr	
Cost	$65 million	Total cost of the proposed rule would be $101 million.
Small business cost	$33 million (95 kilns at 62 plants)	Total cost to small businesses would be $39 million.

Based on the aforementioned analyses, we determined that the benefits of requiring controls for the kiln exhaust process streams from existing tunnel kilns with design capacities less than 10 tph do not justify the cost at this time. Therefore, we are not requiring beyond-the-floor levels of emissions reductions at this time. Based on these considerations, we have decided that the control level for the kiln exhaust process stream from existing tunnel kilns with design capacities less than 10 tph should be ''no emissions reductions.''

b. *Kiln/Sawdust Dryer Exhaust Process Stream.* None of the kiln/sawdust dryer exhaust process streams from existing tunnel kilns with design capacities less than 10 tph are equipped with APCD. Nor are such kilns reducing emissions from their kiln/sawdust dryer exhaust process streams through the use of low-HAP fuels or raw materials. For the same reasons outlined in the floor discussion for the kiln exhaust process streams, we believe that the use of low-HAP fuels or raw materials is not a viable option. Therefore, because we did not identify any means by which existing tunnel kilns with design capacities less than 10 tph are currently reducing emissions from their kiln/sawdust dryer exhaust process streams, the MACT floor for all pollutants from the kiln/sawdust dryer process streams is ''no emissions reductions.''

We also considered beyond-the-floor options for the kiln/sawdust dryer exhaust process stream that is part of some sawdust-fired tunnel kilns. The options we considered were: (1) Heating the sawdust dryer exhaust above the dew points of the acid gases and then applying DIFF or DLS/FF controls to the exhaust; (2) installing a DIFF or DLS/FF prior to the sawdust dryer, and then exhausting the APCD to the sawdust dryer; and (3) requiring that facilities purchase dry sawdust or use other methods to dry the sawdust, thus eliminating the kiln/sawdust dryer process stream. Because all of these

options involve additional costs beyond the costs of the options for controlling the kiln exhaust process stream, we determined that the benefits of requiring control of the kiln/sawdust dryer process stream for existing tunnel kilns with design capacities less than 10 tph do not justify the cost at this time. Therefore, we are not requiring beyond-the-floor levels of emissions reductions at this time for the kiln/sawdust dryer exhaust process stream. The control level for the kiln/sawdust dryer exhaust process stream from existing tunnel kilns with design capacities less than 10 tph is ''no emissions reductions.''

3. Existing Tunnel Kilns With Design Capacities Equal to or Greater Than 10 TPH

As discussed earlier, tunnel kilns may have more than one process stream, including the kiln exhaust process stream and the kiln/sawdust dryer exhaust process stream.

a. *Kiln Exhaust Process Stream.* The subcategory of tunnel kilns with design capacities equal to or greater than 10 tph of fired product includes 97 tunnel kilns that are located at major sources of HAP. The best-controlled 12 percent of these sources include four DIFF-controlled, four DLS/FF-controlled, two WS-controlled, and two DLA-controlled kilns. The level of control that corresponds to the mean of the best-controlled 12 percent of these kilns is the 94th percentile level of control. We consider the DIFF, DLS/FF, and WS installed on 10 of the best-controlled 12 sources to provide equivalent overall control of HAP, and each of these controls, therefore, is representative of the 94th percentile level of control. The proposed emission limits are based on the performance of all three control technologies. In addition to APCD, we considered other possible MACT floors such as the use of low-HAP fuels or raw materials. However, because available data do not show increased HAP emissions based on fuel use, a MACT floor based on fuel type is not appropriate for these sources. In addition, low-HAP raw material use is not a viable MACT option because all facilities use local clays and shales to produce BSCP, and such local materials are integral to those products. The procurement of low-HAP raw materials as a control measure is not done in the BSCP industry. Beyond-the-floor options for the kiln exhaust process stream were not evaluated because emissions reductions achieved by DIFF, DLS/FF, and WS represent the best control achieved by sources that would be subject to the proposed rule.

b. *Kiln/Sawdust Dryer Exhaust Process Stream.* None of the kiln/sawdust dryer exhaust process streams are equipped with APCD, and to our knowledge, no existing tunnel kilns with design capacities equal to or greater than 10 tph are using low-HAP fuels or raw materials to reduce HAP emissions from their kiln/sawdust dryer exhaust process streams. Therefore, the MACT floor for these kiln/sawdust dryer process streams is ''no emissions reductions.''

We considered beyond-the-floor options for the kiln/sawdust dryer exhaust process stream that is part of some sawdust-fired tunnel kilns. The options we considered were: (1) Heating the sawdust dryer exhaust above the dew points of the acid gases and then applying DIFF, DLS/FF, WS, or equivalent control to the exhaust; (2) installing a DIFF, DLS/FF, or equivalent control prior to the sawdust dryer, and then exhausting the APCD to the sawdust dryer; and (3) requiring that facilities purchase dry sawdust or use other methods to dry the sawdust, thus eliminating the kiln/sawdust dryer process stream and controlling the entire kiln exhaust process stream with a DIFF, DLS/FF, WS, or equivalent control. Because the beyond-the-floor options involve additional costs beyond the costs of the options for controlling the kiln exhaust process stream and because limited data show that sawdust dryers provide some degree (up to about 60 percent) of acid gas control, we determined that the benefits of requiring control of the kiln/sawdust dryer process stream for existing tunnel kilns with design capacities equal to or greater than 10 tph do not justify the cost at this time. Therefore, we are not requiring beyond-the-floor levels of emissions reductions at this time for kiln/sawdust dryer exhaust process streams from existing tunnel kilns with a design capacity equal to or greater than 10 tph. The level of control for such process streams is ''no emissions reductions.''

By contrast, for the class of existing tunnel kilns with design capacities equal to or greater than 10 tph that first duct exhaust to sawdust dryers on or after July 22, 2002, all of the exhaust (i.e., all process streams, including the kiln/sawdust dryer exhaust process stream) is subject to the same level of control requirement as a new tunnel kiln. We believe it is important to regulate all of the exhaust from this subset of existing tunnel kilns in order to prevent existing tunnel kilns that do not duct exhaust to sawdust dryers prior to July 22, 2002 from circumventing the requirements of the proposed rule by ducting to sawdust dryers.

4. Consideration of ''Synthetic Area Sources'' in the MACT Floor Determinations for Existing Sources

In determining the MACT floors as discussed above, we included ''synthetic area sources'' (sometimes called ''synthetic minor sources''). Synthetic area sources include those that emit fewer than 10 tons per year of any HAP or fewer than 25 tons per year of any combination of HAP because they use some emission control device (or devices) adopted under existing Federal or State regulations. In the absence of such controls, these sources would be major. In this proposal, however, we are requesting comment on whether or not synthetic area sources should be included in or excluded from the MACT floor determinations for existing tunnel kilns. Industry representatives have stated that the MACT floor determination should not include these synthetic area sources. Whether or not synthetic area sources are included would affect the level of control represented by the floor determinations for existing tunnel kilns. (By contrast, the floor determination for existing periodic kilns would not be affected by the inclusion or exclusion of synthetic area sources, because the MACT floor for such kilns is ''no emissions reductions.'')

The way that including or excluding synthetic area sources would affect the floor determinations for tunnel kilns would vary depending on the design capacity-based subcategorization level. For example, for existing tunnel kilns, with no subcategories based on design capacity, the MACT floor would be a DLA if synthetic area sources are included in the floor determination; the MACT floor would be ''no emissions reductions'' if synthetic area sources are excluded from the floor determination. Thus, excluding synthetic area sources from the MACT floor determination in this example would reduce the number of impacted facilities, the total annual cost, and the HAP emissions reductions achieved at the floor level of control. Control options more stringent than the MACT floor of ''no emissions reductions'' must then be evaluated, considering the associated costs, non-air quality health and environmental impacts, and energy requirements, to arrive at the requirements of the proposed rule. Furthermore, with 10 tph design capacity-based subcategories (as proposed), the MACT floor would be a DIFF, DLS/FF or WS if synthetic area sources are included in the floor determination and the MACT floor

would be a DLA if synthetic area sources are excluded from the floor determination. Accordingly, excluding synthetic area sources from the MACT floor determination in this example would reduce both the total annual cost and the HAP emissions reductions achieved. EPA specifically solicits comment on whether or not synthetic area sources should be included in the MACT floor determinations for existing tunnel kilns.

D. How Did We Determine the MACT Floors for New Sources?

For new sources, the CAA requires the MACT floors to be based on the degree of emissions reductions achieved in practice by the best-controlled similar source. In some instances, the existing source MACT floor control levels may also represent the level of control appropriate for new sources. In these instances, the existing source MACT floor technology represents the greatest degree of emissions reductions that is achievable. In other instances, the MACT floor levels of control for new sources are more stringent than for existing sources.

1. New Periodic Kilns

We determined, based on design differences and the fact that periodic kilns are batch processes, that periodic kilns and tunnel kilns are not similar sources. Two major design differences between periodic and tunnel kilns are the varying temperature and flow profiles associated with periodic kilns. In a single batch cycle, periodic kiln exhaust temperatures begin at ambient temperature and minimal air flow and gradually increase to temperatures that may exceed 315°C (600°F) and flow rates in excess of 340 actual cubic meters per minute (m^3/min) (12,000 actual cubic feet per minute (acfm)). In contrast, tunnel kiln exhaust temperatures and flow rates remain relatively constant. In addition, periodic kilns involve a batch process whereas tunnel kilns involve a continuous process. Another difference in periodic kilns and tunnel kilns is that periodic kilns generally are used to produce specialty products such as brick shapes and structural pipe, whereas tunnel kilns typically are used to produce face brick and other standard products. Finally, APCD have not been proven on periodic kilns. Dry injection fabric filters, DLS/FF, and WS that are used to control HAP emissions from tunnel kilns have not been applied to periodic kilns, and it is not clear how these APCD would perform on periodic kilns with highly variable temperature and flow profiles. For these reasons, we do not consider periodic kilns and tunnel kilns to be similar sources. Therefore, MACT for new periodic kilns is based on the best-controlled periodic kiln. Currently, one periodic kiln is equipped with a DLA, but the DLA has not been proven effective in controlling emissions from the kiln. As previously explained, MACT options such as low-HAP fuels or raw materials are not appropriate for BSCP kilns. Therefore, the best-controlled similar source is an uncontrolled periodic kiln, and the MACT floor level of control for new periodic kilns is ''no emissions reductions.'' Because no APCD have been demonstrated to control HAP emissions, and we believe that low-HAP fuels or raw materials are not viable options, we found no beyond-the-floor options for new periodic kilns. Therefore, we have determined that the control level for new periodic kilns should be ''no emissions reductions.''

2. New Tunnel Kilns With Design Capacities Less Than 10 TPH

The new source MACT floor for tunnel kilns with design capacities less than 10 tph is based on the emission control that is achieved in practice by the best-controlled similar source. We identified a tunnel kiln with a design capacity equal to or greater than 10 tph of fired product as the best-controlled similar source. Although the MACT floor levels of control for existing tunnel kilns with design capacities less than 10 tph are ''no emissions reductions,'' we determined that the MACT control levels for new tunnel kilns with design capacities less than 10 tph are represented by DIFF-, DLS/FF-, or WS-based controls. The basis of this determination is that there are no design differences based on kiln size that would preclude the ability of a smaller (less than 10 tph capacity) kiln to be controlled with technologies that primarily have been applied to larger kilns. In fact, one new (on-line in November 2000) kiln with a capacity between 9 and 10 tph is currently controlled with a DIFF. Moreover, new sources have the ability to plan for achieving emissions reductions efficiently during the design phase that precedes their construction. Therefore, control with a DIFF, DLS/FF, WS, or equivalent control represents MACT for new tunnel kilns with design capacities less than 10 tph of fired product.

All process streams from new tunnel kilns would be subject to the emission limitations because the best-controlled sources control 100 percent of their kiln exhaust. As previously explained, options such as low-HAP fuels or raw materials are not appropriate for BSCP kilns. Beyond-the-floor options were not evaluated because emissions reductions achieved by DIFF, DLS/FF, and WS represent the best overall control of HAP.

3. New Tunnel Kilns With Design Capacities Equal to or Greater Than 10 TPH

The controls that we consider to represent the MACT floor for existing tunnel kilns with design capacities equal to or greater than 10 tph of fired product also are considered to be the best controls available for controlling HF, HCl, and PM emissions from such brick kilns. Therefore, control with a DIFF, DLS/FF, WS, or equivalent control represents the MACT floor for new tunnel kilns with design capacities equal to or greater than 10 tph.

All process streams from new tunnel kilns would be subject to the emission limitations because the best-controlled sources control 100 percent of the kiln exhaust. As previously explained, MACT options such as low-HAP fuels or raw materials are not appropriate for BSCP kilns. Beyond-the-floor options were not evaluated because emissions reductions achieved by DIFF, DLS/FF, and WS represent the best overall control of HAP.

E. How Did We Select the Format of the Proposed Rule?

The formats for complying with today's proposed rule include production-based emission limits and percent reduction emission limits. Affected tunnel kilns would have the option of meeting production-based or percent reduction emission limits for HF and HCl. The percent reduction emission limits alternative for HF and HCl is offered to account for the variability in the amount of these HAP in the uncontrolled kiln emissions because kilns with higher inlet HF or HCl concentrations may not be capable of meeting the production-based emission limits. Affected tunnel kilns would also have to meet a production-based emission limit for PM.

F. How Did We Determine the Emission Limits?

We have performance data for five of the nine DLS/FF and DIFF and one of the two WS currently operating on BSCP kilns. The evaluation of the data included analyses of APCD operating parameters to determine whether the devices were operating properly during the emission tests. The emissions data were used to develop production-based and percent removal emission limits for HF and HCl emissions from tunnel kilns. In addition, a production-based

PM emission limit for affected tunnel kilns was developed using the test data. Additional details on the test data and analyses are available in docket A–99–30.

1. Hydrogen Fluoride

The proposed HF emission limits for tunnel kilns include a production-based emission limit of 0.0135 kg/Mg (0.027 lb/ton) of fired product and a percent reduction emission limit of at least 95 percent. To develop this percent reduction emission limit, we analyzed the available HF test data from DIFF-, DLS/FF-, and WS-controlled kilns. The individual emission tests show HF or total fluoride (TF) control efficiencies ranging from 95.9 percent to 99.9 percent. The available data show that TF and HF emissions from tunnel kilns are similar, and we, therefore, consider TF control efficiencies to be good estimates of HF control efficiencies for DIFF, DLS/FF, and WS systems. For DIFF systems, one available test shows a TF control efficiency of 99.8 percent. Five HF emission tests conducted on four DLS/FF-controlled kilns show control efficiencies of 95.9 percent, 96.9 percent, 98.5 percent, 99.7 percent, and 99.9 percent. Two TF emission tests conducted on a WS-controlled kiln show control efficiencies of 98.8 percent and 99.9 percent. These data indicate that DIFF, DLS/FF, and WS, all of which are considered representative of MACT, currently operating on the best-controlled BSCP kilns are capable of achieving HF control efficiencies of 95 percent. In addition, 95 percent is the highest control level that DIFF and DLS/FF manufacturers have guaranteed for BSCP kilns. The 95 percent control efficiency was used in conjunction with the average uncontrolled HF emission factor for the BSCP industry, 0.27 kg/Mg (0.54 lb/ton), to calculate the proposed HF emission limit of 0.014 kg/Mg (0.027 lb/ton).

2. Hydrogen Chloride

The proposed HCl emission limits include a production-based emission limit of 0.019 kg/Mg (0.037 lb/ton) of fired product and a percent reduction emission limit of at least 90 percent. To develop this percent reduction emission limit, we analyzed the available HCl test data from DLS/FF-controlled kilns. Emission tests conducted on two DLS/FF-controlled kilns showed HCl control efficiencies of 98.2 percent and 99.8 percent. Because no data are available to quantify HCl control efficiencies for DIFF or WS in the BSCP industry, we examined HCl data for DIFF and WS operating in other industries. Data from DIFF that are used to control emissions from sources within the secondary aluminum industry indicate that the systems provide 90 percent control of HCl, which is the HCl emission limit in the secondary aluminum NESHAP (65 FR 15690, March 23, 2000). Measured HCl concentrations from sources within the secondary aluminum industry are within the range of concentrations measured from brick kilns. Wet scrubbers are expected to perform at least as well as DLS/FF and DIFF. Additionally, data from WS used on medical waste incinerators show HCl reductions of 99 percent, although these control efficiencies were achieved on much higher inlet HCl loadings (61 FR 31736, June 20, 1996). Because we believe that it is important to consider the variability in performance of the control technologies representative of MACT, we selected 90 percent as the percent reduction emission limit for HCl. Control device vendors have indicated that WS can meet this emission limit. This 90 percent control efficiency was used in conjunction with the average uncontrolled HCl emission factor for the BSCP industry, 0.19 kg/Mg (0.37 lb/ton), to calculate the proposed HCl emission limit of 0.019 kg/Mg (0.037 lb/ton).

3. Particulate Matter

Particulate matter was selected as a surrogate pollutant for HAP metals, including mercury in particulate form, that are emitted from BSCP kilns. The percentages of PM emissions composed of HAP metals at four facilities for which HAP metals and PM data are available are 0.16 percent, 0.99 percent, 2.8 percent, and 4.5 percent. The large degree of variability in these percentages may be a result of differences in metallic surface coatings, body additives, brick raw material composition, kiln fuel, or a combination of these factors. The available test data for DIFF-, DLS/FF-, and WS-controlled kilns indicate that production-based outlet PM emissions range from 0.0017 kg/Mg (0.0034 lb/ton) to 0.060 kg/Mg (0.12 lb/ton). We selected the high end of the range from the best-controlled kilns, 0.060 kg/Mg (0.12 lb/ton) of fired product, as the PM emission limit for tunnel kilns in order to include WS, which would be less costly for some facilities than DIFF and DLS/FF and which would more readily achieve high HF and HCl removal, as a viable control option for complying with the proposed rule.

G. How Did We Select the Operating Limits and Monitoring Requirements?

We selected operating limits and monitoring requirements that would ensure proper operation of APCD used to comply with the proposed rule. These operating limits and monitoring requirements would require you to monitor and maintain certain parameters within levels established during performance tests that documented compliance with the proposed emission limits. We believe that these operating limits and monitoring requirements would provide sufficient information needed to assure continuing compliance or identify operating problems at the source. At the same time, the provisions are not labor intensive, do not require expensive or complex equipment, and do not require burdensome recordkeeping. Temperature monitoring and recording equipment and lime injection rate monitoring and recording equipment are standard features on DIFF and DLS/FF. Water injection rate monitoring and recording equipment is a standard feature on DLS/FF. For WS, pressure drop monitors and liquid flow monitors often are part of standard scrubber instrumentation.

V. Summary of the Proposed Rule for Clay Ceramics Manufacturing

A. What Source Category Is Regulated by the Proposed Rule?

Today's proposed rule for clay ceramics manufacturing applies to clay ceramics manufacturing facilities that are, are located at, or are part of, a major source of HAP emissions. The clay ceramics manufacturing source category includes those facilities that manufacture pressed floor tile, pressed wall tile, and other pressed tile; or sanitaryware (toilets and sinks). Clay ceramics are primarily composed of clay and shale, and may include many different additives, including silica, talc, and various high purity powders produced by chemical synthesis. Clay ceramics manufacturing generally includes raw material processing and handling and forming of the tile or sanitaryware shapes, followed by drying, glazing, and firing. Most clay ceramics are coated with a glaze prior to firing. The clay ceramics industry also includes dinnerware and pottery manufacturing, but these industry segments are not covered by the proposed rule because we determined that there are no dinnerware or pottery manufacturing facilities that are major sources of HAP.

Available information shows a total of 58 facilities that produce clay ceramics. Thirty-one of these facilities, located in 16 States, primarily produce pressed tile, while 26 of these facilities, located in 15 States, primarily produce

sanitaryware. Eight of the 58 clay ceramics manufacturing facilities are estimated to be major sources. Thirteen clay ceramics facilities are owned by small businesses, and none of the small business-owned facilities are estimated to be major sources.

All clay ceramics are fired in kilns. Firing may be performed in one or more stages. Tile can be fired in either continuous (tunnel or roller) or batch (periodic) kilns, but most facilities use either tunnel or roller kilns for tile production. Most newer tile kilns are roller kilns, which are considerably more fuel efficient than tunnel kilns. Production rates for both tunnel and roller kilns average between 2 and 3 tph. Nearly all kilns are fueled by natural gas. Periodic kilns are usually used at smaller facilities or are used primarily for second-firing a product after a glaze has been applied. Most of the periodic kiln times range from 20 to 40 hours per batch.

The sanitaryware industry uses either tunnel kilns or periodic kilns for firing. Tunnel kilns account for most sanitaryware firing; periodic kilns are used primarily for refiring rejected pieces that have been repaired and re-glazed. Some smaller facilities use periodic kilns for all firing operations. Production rates for tunnel kilns average between 2 and 3 tph. Most sanitaryware kilns are fired with natural gas. Most tunnel and periodic kilns operate with maximum temperatures in the range of 950° to 1260°C (1750° to 2300°F).

The primary HAP emission sources at clay ceramics manufacturing plants are roller, tunnel, and periodic kilns which emit HF, HCl, and HAP metals. Kilns also emit PM and SO_2. Currently, no APCD are used by the clay ceramics industry to control emissions from kilns. Other sources of HAP emissions at clay ceramics manufacturing plants are the raw material processing and handling equipment.

B. What Are the Affected Sources?

The affected sources, which are the portions of each source in the category for which we are setting emission standards, are each new or reconstructed tunnel and roller kiln. Kilns that are used exclusively for R&D and not used to manufacture products for commercial sale are not subject to the requirements of today's proposed rule. Kilns that are used exclusively for refiring or for setting glazes on previously fired products are not subject to the requirements of today's proposed rule.

A source is a new affected source if construction began after July 22, 2002. An affected source is reconstructed if the criteria defined in 40 CFR 63.2 are met.

C. When Must I Comply With the Proposed Rule?

New or reconstructed affected sources with an initial startup before [DATE OF PUBLICATION OF THE FINAL RULE IN THE **Federal Register**] must comply no later than [DATE OF PUBLICATION OF THE FINAL RULE IN THE **Federal Register**]. New or reconstructed affected sources with an initial startup after [DATE OF PUBLICATION OF THE FINAL RULE IN THE **Federal Register**] must comply upon initial startup. Any portion of existing facilities that become new or reconstructed major sources and any new or reconstructed area sources that become major sources must be in compliance upon initial startup.

D. What Are the Emission Limits?

Today's proposed rule includes emission limits in the form of production-based mass emission limits and percent reduction requirements. In establishing the HAP emission limits, we selected PM as a surrogate for HAP metals, including mercury in particulate form. Today's proposed rule includes HF, HCl, and PM emission limits for new and reconstructed affected sources at clay ceramics manufacturing facilities.

If you own or operate a new or reconstructed tunnel or roller kiln, you would be required to meet an HF emission limit of 0.014 kg/Mg (0.027 lb/ton) of product or reduce uncontrolled HF emissions by at least 95 percent. You also would be required to meet an HCl emission limit of 0.019 kg/Mg (0.037 lb/ton) of product or reduce uncontrolled HCl emissions by at least 90 percent. If you own or operate a new or reconstructed tunnel or roller kiln, you also would be required to meet a PM emission limit of 0.06 kg/Mg (0.12 lb/ton).

E. What Are the Operating Limits?

The operating limits being proposed for new and reconstructed clay ceramics tunnel and roller kilns are the same as those that are being proposed for new and reconstructed BSCP tunnel kilns. These operating limits are presented in section II.E of this preamble. We also are soliciting comment on requiring the application of PM CEMS as a method to assure continuous compliance with the proposed PM emission limits for clay ceramics tunnel and roller kilns. Specifically, we are soliciting comment on the relation of a PM CEMS requirement to the PM emission limits that are proposed today. This includes the level and averaging time of a CEMS-based PM emission limit and the methodology for deriving the limit from the available data for clay ceramics tunnel and roller kilns.

We have continued to learn about the capabilities and performance of PM CEMS through performing and witnessing field evaluations and through discussions with our European counterparts. We believe there is sound evidence that PM CEMS should work on clay ceramics tunnel and roller kilns.

We intend to propose revisions to the performance specification for PM CEMS (PS–11, 40 CFR part 60, appendix B, and Procedure 2, 40 CFR part 60, appendix F) in the near future with subsequent promulgation.

F. What Are the Performance Test and Initial Compliance Requirements?

The performance test and initial compliance requirements being proposed for new and reconstructed clay ceramics tunnel and roller kilns are the same as those that are being proposed for BSCP manufacturing kilns. These requirements are presented in section II.F of this preamble.

G. What Are the Continuous Compliance Requirements?

The continuous compliance requirements being proposed for new and reconstructed clay ceramics tunnel and roller kilns are the same as those that are being proposed for BSCP manufacturing kilns. These requirements are presented in section II.G of this preamble.

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

The notification, recordkeeping, and reporting requirements being proposed for new and reconstructed clay ceramics tunnel and roller kilns are the same as those that are being proposed for BSCP manufacturing kilns. These requirements are presented in section II.H of this preamble.

VI. Summary of Environmental, Energy, and Economic Impacts for the Proposed Clay Ceramics Manufacturing NESHAP

A. What Are the Air Quality Impacts?

Because we are not regulating existing sources under the proposed rule, no air quality impacts are projected for existing sources. To project air quality impacts for new sources, we assumed that one tile roller kiln (3.5 tph capacity) and one sanitaryware tunnel kiln (4 tph capacity), each equipped with a DIFF, will begin operation at the beginning of the first year following promulgation of the rule as proposed. We estimate that by implementing the rule as proposed,

HF emissions from these new sources would be reduced by 8.1 Mg/yr (8.9 tpy), HCl emissions would be reduced by 4.8 Mg/yr (5.3 tpy), and HAP metals emissions would be reduced by 0.19 Mg/yr (0.21 tpy). We also estimate that PM and SO_2 emissions from the new kilns would be reduced by 9.0 Mg/yr (9.9 tpy) and 22 Mg/yr (24 tpy), respectively.

Secondary air impacts associated with the proposed clay ceramics rule are direct impacts that result from the operation of any new APCD. The generation of electricity required to operate the control devices on the two projected new kilns will result in 0.4 tpy of NO_X emissions in the first year following promulgation of the rule as proposed. The electricity was assumed to be generated by natural gas-fired turbines.

B. What Are the Water and Solid Waste Impacts?

Because we are not regulating existing sources under the proposed rule, no water and solid waste impacts are projected for existing sources. Our analyses are based on the use of DIFF for controlling new kilns and, therefore, no water impacts are projected for new sources. To project solid waste impacts for new sources, we assumed that one tile roller kiln and one sanitaryware tunnel kiln, each equipped with a DIFF, will begin operation at the beginning of the first year following promulgation of the rule as proposed. The solid waste disposal impacts that result from the use of DIFF will include the disposal of the spent lime that is injected into the kiln exhaust stream and subsequently captured by a fabric filter. We calculated the solid waste by taking the difference between the amount of lime injected into the system and the amount of reacted lime and adding the amount of reaction products. Stoichiometric ratios of 1.0 to 1.5 have been reported for the DIFF in use in the brick manufacturing industry. An average stoichiometric ratio of 1.35 was used in this analysis. We estimate that implementing the rule as proposed would result in the generation of 114 Mg/yr (126 tpy) of solid waste from new sources.

C. What Are the Energy Impacts?

Because we are not regulating existing sources under the proposed rule, no energy impacts are projected for existing sources. To project energy impacts for new sources, we assumed that one tile roller kiln and one sanitaryware tunnel kiln, each equipped with a DIFF, will begin operation at the beginning of the first year following promulgation of the rule as proposed. Energy impacts consist of the electricity needed to operate the DIFF. Electricity requirements are driven primarily by the size of the fan needed in the control device. We estimate the increase in energy consumption that would result from implementation of the rule as proposed to be 3.2 terajoules per year (3.0 billion Btu per year).

D. Are There Any Additional Environmental and Health Impacts?

Because we are not regulating existing sources under the proposed rule, no additional environmental and health impacts are projected for existing sources. The HAP controls that are likely to be installed on new kilns also provide control of SO_2 and PM emissions. We estimate that SO_2 and PM emissions from the projected new kilns would be reduced by 22 Mg/yr (24 tpy) and 9.0 Mg/yr (9.9 tpy), respectively.

E. What Are the Cost Impacts?

Because we are not regulating existing sources under the proposed rule, no cost impacts are projected for existing sources. To project costs for new sources, we assumed that one tile roller kiln and one sanitaryware tunnel kiln, each equipped with a DIFF, will be built during the first year following promulgation of the rule as proposed. We estimate the capital costs associated with implementation of the rule as proposed to be $1.1 million for new sources. The capital costs include the purchase and installation of DIFF and monitoring equipment. We estimate the annualized costs associated with implementation of the rule as proposed to be $560,000 per year for new sources. The annualized costs include annualized capital costs of the control and monitoring equipment, operation and maintenance expenses, emission testing costs, and recordkeeping and reporting costs associated with installing and operating the DIFF.

We calculated the cost estimates using cost algorithms that are based on procedures from EPA's OAQPS Control Cost Manual (EPA 450/3–90–006, January 1990) and cost information provided by the BSCP industry and control device vendors. We estimated costs by developing model process units that correspond to the various sizes of kilns found at clay ceramics manufacturing facilities. Additional information on the model process units and cost estimates are included in docket A–2000–48.

F. What Are the Economic Impacts?

The goal of the economic impact analysis is to estimate the market response of clay ceramics manufacturing producers to the proposed rule and to determine the economic effects that may result due to the proposed rule. Because the MACT floor for existing clay ceramics kilns is ''no emissions reductions,'' there are no compliance costs associated with today's proposed rule. The aggregate price of ceramic products is, therefore, expected to remain the same. Because the prices of ceramic products are not expected to change due to the proposed rule, there are no projected changes in domestic production, domestic consumption, or foreign trade. Therefore, no economic impacts on existing major sources are expected from the proposed rule.

Unlike existing sources, new sources used to produce clay ceramics will face positive compliance costs. We estimate that two new kilns will be constructed in the first 5 years after the rule is promulgated as proposed. One new 3.5 tph capacity roller kiln is projected to come on-line in the ceramic floor and wall tile industry, and one new 4 tph capacity tunnel kiln is projected for the sanitaryware industry. Industry compliance costs associated with these kilns are expected to be less than 0.1 percent of industry value of shipments for each of these industries. At the new kiln level, the share of costs to sales generated from the output produced by the ceramic floor and wall tile kiln is expected to be less than 1.5 percent. No level of cost-to-sales for sanitaryware kilns could be developed due to the diversity of product types that they produce.

VII. Rationale for Selecting the Proposed Standards for Clay Ceramics Manufacturing

A. How Did We Select the Emission Sources and Pollutants That Will Be Regulated?

In the clay ceramics manufacturing industry, the most significant sources of HAP emissions are kilns, including continuous (tunnel and roller) kilns and periodic kilns. Other sources of HAP emissions at clay ceramics manufacturing facilities are the raw material processing and handling equipment. The proposed rule covers new tunnel and roller kilns at major source clay ceramics manufacturing facilities.

At the temperatures encountered in clay ceramics kilns, naturally occurring fluorides and chlorides found in raw clays and shales are released to the atmosphere as HF and HCl. We estimate that eight clay ceramics manufacturing facilities emit more than 9.07 Mg/yr (10 tpy) of HF and, therefore, are major

sources as defined by the CAA. In addition, we estimate that some of these facilities may emit more than 9.07 Mg/yr (10 tpy) of HCl. In addition to HF and HCl, it is likely that all of the HAP metals (antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury (in particulate form), nickel, and selenium) listed in section 112(b) of the CAA may be emitted from clay ceramics kilns because these pollutants have been detected in brick kiln exhaust. The HAP metals may emanate from trace quantities of metals found in raw materials, metallic body additives, glazes, and other surface coatings commonly used in the industry, or from the fuels fired in the kilns. Therefore, we propose to regulate HF, HCl, and HAP metals (using PM as a surrogate for HAP metals, including mercury in particulate form) emissions from clay ceramics kilns. Clay ceramics kilns that are used exclusively for refiring or for setting glazes on previously fired products are not expected to emit HF or HCl and, therefore, would not be subject to the proposed rule.

Particulate matter was selected as a surrogate for HAP metals that are emitted in particulate form because HAP metals are expected to be present in the clay ceramics kiln exhaust stream, and the same control mechanisms that remove PM from the exhaust stream also will remove nonvolatile and semi-volatile HAP metals. Available data from the brick industry show that HAP metals constitute between 0.16 percent and 4.5 percent of kiln PM emissions. The use of PM as a surrogate pollutant for HAP metals also reduces the costs associated with compliance testing and monitoring because such testing and monitoring is necessary only for a single PM emission limit, rather than for numerous emission limits for individual HAP metals.

B. How Did We Determine Subcategories?

Section 112(d)(1) of the CAA allows EPA to promulgate emission standards for either categories or subcategories of sources. Through subcategorization, we are able to define subsets of similar emission sources within a source category if differences in emissions characteristics, processes, APCD viability, or opportunities for pollution prevention exist within the source category. Upon initial consideration of the available information on the clay ceramics manufacturing industry, we determined that separate subcategories for periodic kilns and continuous (tunnel and roller) kilns were warranted because periodic kilns are smaller than tunnel and roller kilns (with lower production on an hourly basis, and accounting for only a small percentage of total clay ceramics industry production) and are operated in batch cycles, whereas tunnel and roller kilns operate continuously. We also examined subcategorization by kiln fuel, but determined that fuel-based subcategories are not appropriate for these sources because available data from similar sources in the BSCP industry do not show increased HAP emissions based on fuel use.

C. How Did We Determine the MACT Floors for Existing Sources?

The CAA specifies that we set standards for existing sources that are no less stringent than the average emission limitation achieved by the best performing 12 percent of existing sources where there are 30 or more sources (for which the Administrator has emissions information) in the category or subcategory, or the best performing five sources (for which the Administrator has or could reasonably obtain emissions information) where there are fewer than 30 sources.

After identifying the MACT floors for existing sources, we also consider control options more stringent than the MACT floor levels. The selected option may be more stringent than the MACT floor, but the control level must be achievable and reasonable in the Administrator's judgement considering cost, non-air quality health and environmental impacts, and energy requirements. The objective is to achieve the maximum degree of emissions reductions without imposing unreasonable impacts (see section 112(d)(2)of the CAA).

1. Existing Periodic Kilns

No existing periodic kilns are equipped with APCD. In addition to APCD, we considered other possible MACT floors such as the use of low-HAP fuels or raw materials. However, because available data from the clay ceramics and BSCP industries do not show increased HAP emissions based on fuel use, a MACT floor based on fuel type is not appropriate for these sources. In addition, procurement of low-HAP raw materials has not been identified as a control measure that is used in the clay ceramics industry. Therefore, the MACT floor levels of HF, HCl, and PM control for existing periodic kilns are ''no emissions reductions.''

We consider clay ceramics periodic kilns to be similar sources to BSCP periodic kilns. Currently, one BSCP periodic kiln is equipped with a DLA, but the DLA has not been proven effective in controlling emissions from the kiln. We believe that requiring the use of low-HAP fuels would not be appropriate for these sources because, as noted above, available data do not show increased HAP emissions based on fuel use. We also believe that requiring procurement of low-HAP raw materials would not be appropriate because the raw materials used in clay ceramics manufacturing are integral to the end products manufactured. Because no APCD have been demonstrated to control HAP emissions from clay ceramics periodic kilns or BSCP periodic kilns, and low-HAP fuels or raw materials are not viable options, we found no beyond-the-floor options for existing periodic kilns. Therefore, we have determined that the control level for existing periodic kilns should be ''no emissions reductions.''

2. Existing Tunnel Kilns and Roller Kilns

No existing clay ceramics tunnel kilns or roller kilns are equipped with APCD. In addition to APCD, we considered other possible MACT floors such as the use of low-HAP fuels or raw materials. However, because available data from the clay ceramics and BSCP industries do not show increased HAP emissions based on fuel use, a MACT floor based on fuel type is not appropriate for these sources. In addition, procurement of low-HAP raw materials has not been identified as a control measure that is used in the clay ceramics industry. Therefore, the MACT floor levels of HF, HCl, and PM control for existing clay ceramics tunnel and roller kilns are ''no emissions reductions.''

We considered beyond-the-floor controls for existing clay ceramics tunnel and roller kilns. For these analyses, we assessed the costs, emissions reductions, and other impacts of installing and operating a DIFF, which is one APCD representative of the MACT floor for new clay ceramics tunnel and roller kilns, on each existing tunnel and roller kiln located at a major source of HAP. After analyzing all of the impacts of retrofitting each of the 14 existing tile tunnel kilns, 16 existing tile roller kilns, and 23 existing sanitaryware tunnel kilns with a DIFF to control HAP emissions, we concluded that setting standards reflecting this beyond-the-floor approach would be unreasonable at this time. Our analysis included an estimate of emissions reductions that would be achieved by this approach, secondary air impacts, non-air quality impacts, and cost impacts on the clay ceramics manufacturing industry. Primary HAP air pollution impacts from the beyond-

the-floor approach consist of the reduction of HF, HCl, and HAP metals emissions. Specifically, the beyond-the-floor approach would reduce total HAP emissions from existing clay ceramics tunnel and roller kilns by 435 tpy, or 99 percent, from a baseline HAP emission level of 441 tpy. Particulate matter emissions reductions (PM is used as a surrogate for HAP metals) and co-control of SO_2 emissions (from the baseline level) also would result from the beyond-the-floor approach. The estimated baseline emissions and emissions reductions for the beyond-the-floor approach for clay ceramics tunnel kilns and roller kilns are summarized in Table 5 of this preamble. Table 6 of this preamble shows a summary of the results of our evaluations of secondary air, solid waste, energy, and cost impacts for this approach. Using the emissions reductions estimates shown in Table 5 of this preamble and the beyond-the-floor cost presented in Table 6 of this preamble, the nationwide cost effectiveness of requiring clay ceramics tunnel and roller kilns to install DIFF controls is about $36,000 per ton of HAP removed. In addition, the costs of the beyond-the-floor approach are significantly higher than those of the floor level of control. Specifically, the cost of the beyond-the-floor approach is estimated to be $15.8 million for the clay ceramics manufacturing industry, compared to no cost for existing sources under the floor approach.

TABLE 5.—BASELINE EMISSIONS AND EMISSIONS REDUCTIONS FOR BEYOND-THE-FLOOR CONTROL OF CLAY CERAMICS TUNNEL KILNS AND ROLLER KILNS

Pollutant	Baseline emissions, tpy	Emissions reductions, tpy	Percent reduction
HF	267	265	99
HCl	167	164	98
HAP metals	5.9	5.9	99.9
Total HAP	441	435	99
PM	294	294	99.9
SO_2	1,460	730	50

TABLE 6.—SUMMARY OF SECONDARY AIR, SOLID WASTE, ENERGY, AND COST IMPACTS FOR BEYOND-THE-FLOOR CONTROL OF CLAY CERAMICS TUNNEL KILNS AND ROLLER KILNS

Type of impact	Beyond-the-floor impact	Comments
Secondary air: NO_X	12 tpy NO_X increase	Based on electricity provided by gas turbines.
Solid waste	3,800 tpy	Assumes facilities must dispose of all waste lime as solid waste.
Energy	92,000 MMBtu/yr	
Cost	$15.8 million.	

Based on the aforementioned analyses, we determined that the benefits of requiring controls for existing tunnel kilns and roller kilns do not justify the cost at this time. Therefore, we are not requiring beyond-the-floor levels of emissions reductions at this time. Based on these considerations, we have decided that the control level for existing clay ceramics tunnel kilns and roller kilns should be ''no emissions reductions.''

D. How Did We Determine the MACT Floors for New Sources?

For new sources, the CAA requires the MACT floors to be based on the degree of emissions reductions achieved in practice by the best-controlled similar source.

1. New Periodic Kilns

Because we consider clay ceramics periodic kilns to be similar sources to BSCP periodic kilns, MACT for new clay ceramics periodic kilns is based on the best-controlled clay ceramics or BSCP periodic kiln. Currently, one BSCP periodic kiln is equipped with a DLA, but the DLA has not been proven effective in controlling emissions from the kiln. As previously explained, MACT options such as low-HAP fuels or raw materials are not appropriate for clay ceramics kilns. Therefore, the best-controlled similar source is an uncontrolled periodic kiln, and the MACT floor level of control for new clay ceramics periodic kilns is ''no emissions reductions.'' Because no APCD have been demonstrated to control HAP emissions, and we believe that low-HAP fuels or raw materials are not viable options, we found no beyond-the-floor options for new periodic kilns. Therefore, we have determined that the control level for new periodic kilns should be ''no emissions reductions.''

2. New Tunnel and Roller Kilns

For new clay ceramics tunnel and roller kilns, we identified tunnel kilns that produce BSCP as the best-controlled similar source. Although the MACT floor levels of HF, HCl, and PM control for clay ceramics kilns are ''no emissions reductions,'' we determined that MACT for new tunnel and roller kilns is represented by DIFF-, DLS/FF-, or WS-based controls. These controls are considered equivalent in overall control of HAP and are installed on the ten best performing existing BSCP tunnel kilns. The basis of this determination is that BSCP kilns and clay ceramics kilns process many of the same types of raw materials, and the types of emissions (HF, HCl, HAP metals) are the same. Therefore, control with a DIFF, DLS/FF, WS, or equivalent control represents the MACT floor level of control for new clay ceramics tunnel and roller kilns. As previously explained, MACT options such as low-HAP fuels or raw materials are not appropriate for clay ceramics kilns. Beyond-the-floor options for new tunnel and roller kilns were not evaluated because the emissions reductions achieved by DIFF, DLS/FF, and WS represent the best overall control of HAP.

E. How Did We Select the Format of the Proposed Rule?

The formats for complying with today's proposed rule include production-based emission limits and percent reduction emission limits. Affected tunnel and roller kilns would

have the option of meeting production-based or percent reduction emission limits for HF and HCl. The percent reduction emission limits alternative for HF and HCl is offered to account for the variability in the amount of these HAP in the uncontrolled kiln emissions, because kilns with higher inlet HF or HCl concentrations may not be capable of meeting the production-based emission limits. Affected tunnel and roller kilns also would have to meet a production-based emission limit for PM.

F. How Did We Determine the Emission Limits?

Because we determined clay ceramics tunnel and roller kilns to be similar sources to BSCP tunnel kilns, and we based MACT on the best-controlled BSCP tunnel kilns, the emission limits being proposed for clay ceramics manufacturing kilns are the same emission limits that are being proposed for BSCP manufacturing kilns. The rationale for the development of the emission limits for BSCP manufacturing kilns is discussed in section IV.F of this preamble.

G. How Did We Select the Operating Limits and Monitoring Requirements?

Because we determined clay ceramics tunnel and roller kilns to be similar sources to BSCP tunnel kilns, and we based MACT on the best-controlled BSCP tunnel kilns, the operating limits and monitoring requirements being proposed for clay ceramics manufacturing kilns are the same as those that are being proposed for BSCP manufacturing kilns. The rationale for the development of the operating limits and monitoring requirements is discussed in section IV.G of this preamble.

VIII. Solicitation of Comments and Public Participation

We are seeking full public participation in arriving at our final decisions, and we encourage comments on all aspects of this proposal from all interested parties. Full supporting data and detailed analyses should be submitted with comments to allow us to make maximum use of the comments. Information on where and when to submit comments is listed under the **ADDRESSES** and **DATES** sections. Information on procedures for submitting proprietary information in the comments is listed under the **SUPPLEMENTARY INFORMATION** section.

IX. 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 obligations of recipients thereof; or

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

Pursuant to the terms of Executive Order 12866, it has been determined that the proposed rules are not ''significant regulatory actions'' because none of the listed criteria apply to these actions. Consequently, these actions were not submitted to OMB for review under Executive Order 12866.

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

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

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The proposed rules are not subject to Executive Order 13045 because they are not economically significant regulatory actions as defined by Executive Order 12866, and they are based on technology performance and not on health or safety risks.

C. Executive Order 13132, Federalism

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

If EPA complies by consulting, Executive Order 13132 requires EPA to provide to OMB, in a separately identified section of the preamble to the rule, a federalism summary impact statement (FSIS). The FSIS must include a description of the extent of EPA's prior consultation with State and local officials, a summary of the nature of their concerns and EPA's position supporting the need to issue the regulation, and a statement of the extent to which the concerns of State and local officials have been met. Also, when EPA transmits a draft final rule with federalism implications to OMB for review pursuant to Executive Order 12866, the EPA must include a certification from EPA's Federalism Official stating that EPA has met the requirements of Executive Order 13132 in a meaningful and timely manner.

The proposed rules will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various

levels of government, as specified in Executive Order 13132. The proposed rules would not impose directly enforceable requirements on States, nor would they preempt them from adopting their own more stringent programs to control emissions from BSCP and clay ceramics manufacturing facilities. Thus, the requirements of section 6 of the Executive Order do not apply to the proposed rules. Although section 6 of Executive Order 13132 does not apply to the proposed rules, the EPA is providing State and local officials an opportunity to comment on the proposed rules. A summary of the concerns raised during the notice and comment process and EPA's response to those concerns will be provided in the final rulemaking action.

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.''

The proposed rules do not have tribal implications. They will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. No tribal governments are known to own or operate BSCP or clay ceramics manufacturing facilities. Thus, Executive Order 13175 does not apply to the proposed rules.

In the spirit of Executive Order 13175, and consistent with EPA policy to promote communications between EPA and tribal governments, the EPA specifically solicits additional comment on the proposed rules from tribal officials.

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

These rules are not subject to Executive Order 13211 (66 FR 28355, May 22, 2001) because they are not significant regulatory actions under Executive Order 12866.

F. Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, 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 by State, local, and tribal governments, in the aggregate, or by the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed, under section 203 of the UMRA, a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA's regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that the proposed rules do not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. The total annual cost for the proposed BSCP standards for any 1 year is estimated at $36 million. Because the proposed clay ceramics manufacturing standards would not regulate existing sources, the total annual cost is zero. Thus, today's proposed rules are not subject to the requirements of sections 202 and 205 of the UMRA. In addition, the EPA has determined that the proposed rules contain no regulatory requirements that might significantly or uniquely affect small governments because they contain no regulatory requirements that apply to such governments or impose obligations upon them. Therefore, today's proposed rules are not subject to the requirements of section 203 of the UMRA.

G. Regulatory Flexibility Act, as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996, 5 U.S.C. 601 et seq.

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small government jurisdictions. The following two sections provide descriptions of the small business assessments for the two categories of sources addressed by today's proposal.

1. Brick and Structural Clay Products (BSCP) Manufacturing

For purposes of assessing the impacts of today's proposed rule on BSCP manufacturing sources that are small entities, a small entity is defined as: (1) A small business according to Small Business Administration (SBA) size standards; (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. Small Business Administration size standards for BSCP manufacturing, by NAICS code, are shown in Table 7 of this preamble.

TABLE 7.—SMALL BUSINESS SIZE STANDARDS FOR BSCP MANUFACTURING

NAICS code	Size standard, number of employees
327121	500
327122	500
327123	500
327125	750
327993	750

In accordance with the RFA, we conducted an assessment of the proposed standards on small businesses within the BSCP manufacturing industry. Based on SBA NAICS-based size definitions and reported sales and employment data, the EPA identified 77 of the 90 companies owning BSCP manufacturing facilities as small businesses. Although small businesses represent 86 percent of the companies within the source category, they are expected to incur 20 percent of the total industry engineering compliance costs of $35.8 million. Additionally, 66 of the 77 small businesses will incur no costs. Under the proposed rule, the mean annual compliance cost for this source category, as a share of sales, for small businesses is 0.5 percent, and the median is 0.0 percent, with a range of 0.0 percent to 5.3 percent. We estimate that one small firm in this source category may experience an impact between 1 percent and 3 percent of sales, and 9 percent of small businesses (or eight firms) may experience an impact greater than 3 percent of sales.

We also conducted an economic impact analysis that accounted for firm behavior to provide an estimate of the facility and market impacts of the proposed rule. The analysis projected that of the 189 facilities in this source category, two facilities are at risk of closure. Neither of these facilities is owned by a small business. The median compliance cost is below 1 percent of sales for both small and large firms affected by the proposed rule (0.0 and 0.1 percent for small and large firms, respectively).

Fifteen new BSCP manufacturing sources are projected to be constructed during the five years after promulgation of the rule. Industry compliance costs associated with these sources are anticipated to be less than 0.5 percent of the BSCP manufacturing industry's value of shipments. According to the new source economic impact analysis, three to six of these new sources may be delayed in coming on-line due to the compliance costs they would face. We cannot determine with certainty whether these new sources will be built by large or small companies. Regardless, impacts at the company level are not expected to be significant for a substantial number of small entities.

2. Clay Ceramics Manufacturing

For purposes of assessing the impacts of today's proposed rule on clay ceramics manufacturing sources that are small entities, a small entity is defined as: (1) A small business according to SBA size standards; (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. Small Business Administration size standards for clay ceramics manufacturing, by NAICS code, are shown in Table 8 of this preamble.

TABLE 8.—SMALL BUSINESS SIZE STANDARDS FOR CLAY CERAMICS MANUFACTURING

NAICS code	Size standard, number of employees
326191	500
327111	750
327112	500
327122	500
327123	500
327125	750
335121	500
421220	100
421320	100

Based on SBA NAICS-based size definitions and reported sales and employment data, the EPA identified 13 of the 29 companies owning clay ceramics manufacturing facilities as small businesses. Because the proposed rule does not include emissions limits or other requirements for existing kilns in the clay ceramics manufacturing source category, large or small, a firm's existing kilns will not be impacted by the proposed rule. One new ceramic tile manufacturing source and one new sanitaryware manufacturing source are projected to be constructed in the first five years following promulgation of the rule. Industry compliance costs associated with these sources are expected to be less than 0.1 percent of industry value of shipments for each of these industry segments. The share of costs to sales generated from the output produced by the new ceramic tile manufacturing source is expected to be less than 1.5 percent. No level of cost-to-sales for the new sanitaryware manufacturing source could be developed due to the diversity of product types produced. Thus, new clay ceramics manufacturing sources are expected to face positive compliance costs; however, we cannot determine with certainty whether these sources will be built by large or small companies. Regardless, impacts at the company level are not expected to be significant for a substantial number of small entities.

3. RFA Certification

In summary, this action will regulate two source categories that include 90 small business companies out of 119 total companies that own BSCP and clay ceramics manufacturing facilities. The mean annual compliance cost for the BSCP manufacturing and clay ceramics manufacturing source categories, as a share of sales, for small businesses is 0.0 percent, and the median is 0.0 percent, with a range of 0.0 percent to 5.3 percent. Seventy-nine of the 90 small businesses will incur no costs. One small firm is projected to have compliance costs between 1 and 3 percent of their sales, and eight small firms are projected to have cost-to-sales ratios greater than 3 percent. No facilities owned by affected small firms are expected to close after implementation of this action. Industry compliance costs associated with the 17 new BSCP and clay ceramics manufacturing sources projected to be constructed during the five years after promulgation of this action are anticipated to be less than 0.5 percent of each industry's value of shipments.

After considering the economic impacts of today's proposed rule on small entities in these two source categories, I certify that this action will not have a significant impact on a substantial number of small entities. Although the proposed rule will not have a significant economic impact on a substantial number of small entities, we have nonetheless worked aggressively to minimize the impact of the proposed rule on small entities, consistent with our obligations under the CAA. For the BSCP manufacturing source category, we exercised flexibility in minimizing impacts on small entities through subcategorization of existing tunnel kilns by size, which still benefits the environment by reducing emissions from the larger kilns. Input from small entities within the BSCP manufacturing source category was solicited during the data-gathering phase of the rulemaking process.

In addition, for the BSCP manufacturing source category, we contacted the small entities estimated to

incur impacts in excess of 1 percent of sales to explain the proposal's regulatory approach, as well as a potential alternative to installing an APCD. Facilities with tunnel kilns operating at or near 10 tph could accept a permit condition that restricts kiln production to less than 10 tph and, therefore, places the kiln in the subcategory unaffected by the standards for existing kilns.

For both the BSCP manufacturing and clay ceramics manufacturing source categories, we provided flexibility by offering a choice of compliance options. Compliance options include mass emission limits or percent reduction limits for HF and HCl. Compliance with the proposed emission limits can be achieved through use of a DIFF, DLS/FF, WS, or equivalent control device. The various control device options provide an opportunity to determine the most suitable and cost-effective control option for a kiln given the specifics of the facility site. We continue to be interested in the potential impacts of the proposed rule on small entities and welcome comments on issues related to such impacts.

H. Paperwork Reduction Act

The information collection requirements in the proposed rules will be submitted for approval to OMB under the requirements of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The EPA has prepared an Information Collection Request (ICR) document for each of the proposed rules (ICR No. 2022.01 for BSCP manufacturing and ICR No. 2023.01 for clay ceramics manufacturing), and a copy of either document may be obtained from Sandy Farmer, by mail at U.S. EPA, Office of Environmental Information, Collection Strategies Division (2822), 1200 Pennsylvania Avenue, NW, Washington, DC 20460; by e-mail at farmer.sandy@epa.gov; or by calling (202) 260–2740. You may also download a copy off the Internet at *http://www.epa.gov/icr.* The information requirements are not effective until OMB approves them.

The information requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to national emission standards. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to EPA's policies set forth in 40 CFR part 2, subpart B.

The proposed rules would not require any notifications or reports beyond those required by the NESHAP General Provisions. The recordkeeping requirements require only the specific information needed to assure compliance.

The annual monitoring, reporting, and recordkeeping burden for the collection of information required by the proposed BSCP manufacturing rule (averaged over the first 3 years after the effective date of the final rule) is estimated to be 7,273 labor hours per year at a total annual labor cost of $334,000. This burden estimate includes a one-time submission of an OM&M plan; one-time submission of a SSMP, with immediate reports for any event when the procedures in the plan were not followed; semiannual compliance reports; maintenance inspections; notifications; and recordkeeping. Total annualized capital/startup costs associated with the monitoring requirements over the 3-year period of the ICR are estimated at $217,500, with operation and maintenance costs of $16,900/yr.

The annual monitoring, reporting, and recordkeeping burden for the collection of information required by the proposed clay ceramics manufacturing rule (averaged over the first 3 years after the effective date of the final rule) is estimated to be 238 labor hours per year at a total annual labor cost of $10,900. This burden estimate includes a one-time submission of an OM&M plan; one-time submission of a SSMP, with immediate reports for any event when the procedures in the plan were not followed; semiannual compliance reports; maintenance inspections; notifications; and recordkeeping. Total annualized capital/startup costs associated with the monitoring requirements over the 3-year period of the ICR are estimated at $4,300, with operation and maintenance costs of $400/yr.

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

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

Comments are requested on EPA's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques. Send comments on either ICR to the Director, Office of Environmental Information, Collection Strategies Division (2822); U.S. EPA; 1200 Pennsylvania Avenue, NW.; Washington, DC 20460; and to the Office of Information and Regulatory Affairs; Office of Management and Budget; 725 17th Street NW.; Washington, DC 20503; marked ''Attention: Desk Officer for EPA.'' Include the ICR number in any correspondence. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after July 22, 2002, a comment to OMB is best assured of having its full effect if OMB receives it by August 21, 2002. The final rulemaking action will respond to any OMB or public comments on the information collection requirements contained in these proposals.

I. National Technology Transfer and Advancement Act of 1995

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

The proposed rules involve technical standards. The EPA proposes in these rules to use EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 4, 5, 26, and 26A of 40 CFR part 60, appendix A. Consistent with the NTTAA, the EPA conducted searches to identify voluntary consensus standards in addition to these EPA

methods. No applicable voluntary consensus standards were identified for EPA Methods 1A, 2A, 2D, 2F, and 2G. The search and review results have been documented and are in the dockets for the proposed rules.

The search for emission measurement procedures identified 14 voluntary consensus standards potentially applicable to the proposed rules. The EPA determined that 11 of these 14 standards were impractical alternatives to EPA test methods for the purposes of the proposed rules. Therefore, the EPA does not propose to adopt these standards today. The reasons for this determination for the 11 standards are discussed in the dockets for the proposed rules.

The following three of the 14 voluntary consensus standards identified in this search were not available at the time the review was conducted for the purposes of the proposed rules because they are under development by a voluntary consensus body: ASME/BSR MFC 13M, ''Flow Measurement by Velocity Traverse,'' for EPA Method 1 (and possibly 2); ASME/BSR MFC 12M, ''Flow in Closed Conduits Using Multiport Averaging Pitot Primary Flowmeters,'' for EPA Method 2; and an ASTM impinger method for measuring HCl. While we are not proposing to include these three voluntary consensus standards in today's proposed rules, the EPA will consider the standards when final.

The EPA takes comment on the compliance demonstration requirements in the proposed rules and specifically invites the public to identify potentially-applicable voluntary consensus standards. Commentors should also explain why the proposed rules should adopt these voluntary consensus standards in lieu of or in addition to EPA's standards. Emission test methods and performance specifications submitted for evaluation should be accompanied with a basis for the recommendation, including method validation data and the procedure used to validate the candidate method (if a method other than Method 301, 40 CFR part 63, appendix A was used).

Table 3 of the proposed BSCP rule and Table 3 of the proposed clay ceramics rule list the EPA testing methods included in the proposed rules. Under § 63.7(f), a source may apply to EPA for permission to use alternative monitoring in place of any of the EPA testing methods.

List of Subjects in 40 CFR Part 63

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

Dated: June 17, 2002.

Christine Todd Whitman,

Administrator.

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

PART 63—[AMENDED]

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

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

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

Subpart JJJJJ—National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing

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Subpart JJJJJ—National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing

What This Subpart Covers

§ 63.8380 What is the purpose of this subpart?

This subpart establishes national emission limitations for hazardous air pollutants (HAP) emitted from brick and structural clay products (BSCP) manufacturing facilities. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§ 63.8385 Am I subject to this subpart?

You are subject to this subpart if you own or operate a BSCP manufacturing facility that is, is located at, or is part of, a major source of HAP emissions according to the criteria in paragraphs (a) and (b) of this section.

(a) A BSCP manufacturing facility is a plant site that manufactures brick (face brick, structural brick, brick pavers, other brick) and/or structural clay products (clay pipe; roof tile; extruded floor and wall tile; or other extruded, dimensional clay products). Brick and structural clay products manufacturing facilities typically process raw clay and shale, form the processed materials into bricks or shapes, and dry and fire the bricks or shapes.

(b) A major source of HAP emissions is any stationary source or group of

stationary sources within a contiguous area under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (10 tons) or more per year or any combination of HAP at a rate of 22.68 megagrams (25 tons) or more per year.

§ 63.8390 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, or existing affected source at a BSCP manufacturing facility.

(b) The existing affected source is an existing tunnel kiln with a design capacity equal to or greater than 9.07 megagrams per hour (Mg/hr) (10 tons per hour (tph)) of fired product according to paragraphs (b)(1) through (3) of this section.

(1) For existing tunnel kilns that do not have sawdust dryers, the kiln exhaust process stream (*i.e.,* the only process stream) is subject to the requirements of this subpart.

(2) For existing tunnel kilns that duct exhaust to sawdust dryers prior to July 22, 2002, only the kiln exhaust process stream (i.e., the process stream that exhausts directly to the atmosphere or to an air pollution control device (APCD)) is subject to the requirements of this subpart. As such, any process stream that is ducted to a sawdust dryer is not subject to these requirements.

(3) For existing tunnel kilns that first duct exhaust to sawdust dryers on or after July 22, 2002, all of the exhaust (i.e., all process streams) is subject to the requirements of this subpart.

(c) An existing tunnel kiln whose design capacity is increased such that it is equal to or greater than 9.07 Mg/hr (10 tph) of fired product is subject to the requirements of this subpart.

(d) An existing tunnel kiln with a federally enforceable permit condition that restricts kiln operation to less than 9.07 Mg/hr (10 tph) of fired product on a 30-day rolling average basis is not subject to the requirements of this subpart.

(e) Each new or reconstructed tunnel kiln is an affected source regardless of design capacity. All process streams from each new or reconstructed tunnel kiln are subject to the requirements of this subpart.

(f) Kilns that are used exclusively for research and development (R&D) and are not used to manufacture products for commercial sale are not subject to the requirements of this subpart.

(g) Kilns that are used exclusively for setting glazes on previously fired products are not subject to the requirements of this subpart.

(h) A source is a new affected source if construction of the affected source began after July 22, 2002, and you met the applicability criteria at the time you began construction.

(i) An affected source is reconstructed if you meet the criteria as defined in § 63.2.

(j) An affected source is existing if it is not new or reconstructed.

§ 63.8395 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section.

(1) If the initial startup of your affected source is before [DATE OF PUBLICATION OF THE FINAL RULE IN THE **Federal Register**], then you must comply with the emission limitations for new and reconstructed sources in this subpart no later than [DATE OF PUBLICATION OF THE FINAL RULE IN THE **Federal Register**].

(2) If the initial startup of your affected source is after [DATE OF PUBLICATION OF THE FINAL RULE IN THE **Federal Register**], then you must comply with the emission limitations for new and reconstructed sources in this subpart upon initial startup of your affected source.

(b) If you have an existing affected source, you must comply with the emission limitations for existing sources no later than [3 YEARS AFTER THE DATE OF PUBLICATION OF THE FINAL RULE IN THE **Federal Register**].

(c) If you have an existing area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, you must be in compliance with this subpart according to paragraphs (c)(1) and (2) of this section.

(1) Any portion of the existing facility 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 existing facility must be in compliance with this subpart by 3 years after the date the area source becomes a major source.

(d) If you have a new area source (i.e., an area source for which construction or reconstruction was commenced after July 22, 2002) that increases its emissions or its potential to emit such that it becomes a major source of HAP, you must be in compliance with this subpart upon initial startup of your affected source as a major source.

(e) You must meet the notification requirements in § 63.8480 according to the schedule in § 63.8480 and in 40 CFR part 63, subpart A. Some of the notifications must be submitted before you are required to comply with the emission limitations in this subpart.

Emission Limitations

§ 63.8405 What emission limitations must I meet?

(a) You must meet each emission limit in Table 1 to this subpart that applies to you.

(b) You must meet each operating limit in Table 2 to this subpart that applies to you.

§ 63.8410 What are my options for meeting the emission limitations?

To meet the emission limitations in Tables 1 and 2 to this subpart, you must use one or more of the options listed in paragraphs (a) and (b) of this section.

(a) *Emissions control system.* Use an emissions capture and collection system and an APCD and demonstrate that the resulting emissions or emissions reductions meet the emission limits in Table 1 to this subpart, and that the capture and collection system and APCD meet the applicable operating limits in Table 2 to this subpart.

(b) *Process changes.* Use low-HAP raw materials or implement manufacturing process changes and demonstrate that the resulting emissions or emissions reductions meet the emission limits in Table 1 to this subpart.

General Compliance Requirements

§ 63.8420 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations (including operating limits) in this subpart at all times, except during periods of startup, shutdown, and malfunction.

(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i). During the period between the compliance date specified for your affected source in § 63.8395 and the date upon which continuous monitoring systems (CMS) (e.g., continuous parameter monitoring systems) have been installed and verified 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 (SSMP) according to the provisions in § 63.6(e)(3).

(d) You must prepare and implement a written operation, maintenance, and monitoring (OM&M) plan according to the requirements in § 63.8425.

(e) You must be in compliance with the provisions of subpart A of this part, except as noted in Table 7 to this subpart.

§ 63.8425 What do I need to know about operation, maintenance, and monitoring plans?

(a) You must prepare, implement, and revise as necessary an OM&M plan that includes the information in paragraph (b) of this section. Your OM&M plan must be available for inspection by the permitting authority upon request.

(b) Your OM&M plan must include, as a minimum, the information in paragraphs (b)(1) through (12) of this section.

(1) Each process and APCD to be monitored, the type of monitoring device that will be used, and the operating parameters that will be monitored.

(2) A monitoring schedule that specifies the frequency that the parameter values will be determined and recorded.

(3) The limits for each parameter that represent continuous compliance with the emission limitations in § 63.8405. The limits must be based on values of the monitored parameters recorded during performance tests.

(4) Procedures for the proper operation and routine and long-term maintenance of each process unit and APCD, including a maintenance and inspection schedule that is consistent with the manufacturer's recommendations.

(5) Procedures for installing the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.,* on or downstream of the last APCD).

(6) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction system.

(7) Continuous monitoring system performance evaluation procedures and acceptance criteria (*e.g.,* calibrations).

(8) Procedures for the proper operation and maintenance of monitoring equipment consistent with the requirements in §§ 63.8450 and 63.8(c)(1), (3), (4)(ii), (7), and (8).

(9) Continuous monitoring system data quality assurance procedures consistent with the requirements in § 63.8(d).

(10) Continuous monitoring system recordkeeping and reporting procedures consistent with the requirements in § 63.10(c), (e)(1), and (e)(2)(i).

(11) Procedures for responding to operating parameter deviations, including the procedures in paragraphs (b)(11)(i) through (iii) of this section.

(i) Procedures for determining the cause of the operating parameter deviation.

(ii) Actions for correcting the deviation and returning the operating parameters to the allowable limits.

(iii) Procedures for recording the times that the deviation began and ended, and corrective actions were initiated and completed.

(12) Procedures for keeping records to document compliance.

(c) Changes to the operating limits in your OM&M plan require a new performance test. If you are revising an operating limit parameter value, you must meet the requirements in paragraphs (c)(1) and (2) of this section.

(1) Submit a notification of performance test to the Administrator as specified in § 63.7(b).

(2) After completing the performance tests to demonstrate that compliance with the emission limits can be achieved at the revised operating limit parameter value, you must submit the performance test results and the revised operating limits as part of the Notification of Compliance Status required under § 63.9(h).

(d) If you are revising the inspection and maintenance procedures in your OM&M plan, you do not need to conduct a new performance test.

Testing and Initial Compliance Requirements

§ 63.8435 By what date must I conduct performance tests?

You must conduct performance tests within 180 calendar days after the compliance date that is specified for your source in § 63.8395 and according to the provisions in § 63.7(a)(2).

§ 63.8440 When must I conduct subsequent performance tests?

(a) You must conduct a performance test before renewing your 40 CFR part 70 operating permit or at least every 5 years following the initial performance test.

(b) You must conduct a performance test when you want to change the parameter value for any operating limit specified in your OM&M plan.

§ 63.8445 How do I conduct performance tests and establish operating limits?

(a) You must conduct each performance test in Table 3 to this subpart that applies to you.

(b) Before conducting the performance test, you must install and calibrate all monitoring equipment.

(c) Each performance test must be conducted according to the requirements in § 63.7 and under the specific conditions in Table 3 to this subpart.

(d) You must test while operating at the maximum production level.

(e) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1).

(f) You must conduct at least three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour.

(g) You must use the data gathered during the performance test and the equations in paragraphs (g)(1) and (2) of this section to determine compliance with the emission limitations.

(1) To determine compliance with the production-based hydrogen fluoride (HF), hydrogen chloride (HCl), and particulate matter (PM) emission limits in Table 1 to this subpart, you must calculate your mass emissions per unit of production for each test run using Equation 1 of this section:

$$MP = \frac{ER}{P} \qquad \text{(Eq. 1)}$$

Where:

MP = mass per unit of production, kilograms (pounds) of pollutant per megagram (ton) of fired product

ER = mass emission rate of pollutant (HF, HCl, or PM) during each performance test run, kilograms (pounds) per hour

P = production rate during each performance test run, megagrams (tons) of fired product per hour.

(2) To determine compliance with any of the emission limits based on percent reduction across an emissions control system in Table 1 to this subpart, you must calculate the percent reduction for each test run using Equation 2 of this section:

$$PR = \frac{ER_i - ER_o}{ER_i}(100) \qquad \text{(Eq. 2)}$$

Where:

PR = percent reduction, percent

ER_i = mass emission rate of specific HAP (HF or HCl) entering the APCD, kilograms (pounds) per hour

ER_o = mass emission rate of specific HAP (HF or HCl) exiting the APCD, kilograms (pounds) per hour.

(h) You must establish each site-specific operating limit in Table 2 to this subpart that applies to you as specified in Table 3 to this subpart.

(i) For each affected kiln that is equipped with an APCD that is not addressed in Table 2 to this subpart or that is using process changes as a means

of meeting the emission limits in Table 1 to this subpart, you must meet the requirements in § 63.8(f) and paragraphs (i)(1) and (2) of this section.

(1) Submit a request for approval of alternative monitoring procedures to the Administrator no later than the notification of intent to conduct a performance test. The request must contain the information specified in paragraphs (i)(1)(i) through (iv) of this section.

(i) A description of the alternative APCD or process changes.

(ii) The type of monitoring device or procedure that will be used.

(iii) The operating parameters that will be monitored.

(iv) The frequency that the operating parameter values will be determined and recorded to establish continuous compliance with the operating limits.

(2) Establish site-specific operating limits during the performance test based on the information included in the approved alternative monitoring procedures request and, as applicable, as specified in Table 3 to this subpart.

§ 63.8450 What are my monitoring installation, operation, and maintenance requirements?

(a) You must install, operate, and maintain each CMS according to your OM&M plan and the requirements in paragraphs (a)(1) through (5) of this section.

(1) Conduct a performance evaluation of each CMS according to your OM&M plan.

(2) The CMS must complete a minimum of one cycle of operation for each successive 15-minute period. To have a valid hour of data, you must have at least three of four equally spaced data values (or at least 75 percent if you collect more than four data values per hour) for that hour (not including startup, shutdown, malfunction, or out-of-control periods).

(3) Determine and record the 3-hour block averages of all recorded readings, calculated after every 3 hours of operation as the average of the previous 3 operating hours. To calculate the average for each 3-hour average period, you must have at least 75 percent of the recorded readings for that period (not including startup, shutdown, malfunction, or out-of-control periods).

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

(5) At all times, maintain the monitoring equipment including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(b) For each temperature monitoring device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (b)(1) through (7) of this section.

(1) Locate the temperature sensor in a position that provides a representative temperature.

(2) Use a temperature sensor with a minimum measurement sensitivity of 2.2°C (4.0°F) or 0.75 percent of the temperature value, whichever is larger.

(3) Shield the temperature sensor system from electromagnetic interference and chemical contaminants.

(4) If a chart recorder is used, it must have a sensitivity in the minor division of at least 11.1°C (20°F).

(5) At least semiannually, perform an electronic calibration according to the procedures in the manufacturer's owners manual. Following the electronic calibration, conduct a temperature sensor validation check in which a second or redundant temperature sensor placed nearby the process temperature sensor must yield a reading within 16.7oC (30.1oF) of the process temperature sensor's reading.

(6) Any time the sensor exceeds the manufacturer's specified maximum operating temperature range, conduct calibration and validation checks or install a new temperature sensor.

(7) At least monthly, inspect all components for integrity and all electrical connections for continuity, oxidation, and galvanic corrosion.

(c) For each liquid flow measurement device (e.g., to determine dry lime scrubber/fabric filter water injection rate or wet scrubber liquid flowrate), you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (c)(1) through (3) of this section.

(1) Locate the flow sensor in a position that provides a representative flowrate.

(2) Use a flow sensor with a minimum measurement sensitivity of 2 percent of the liquid flowrate.

(3) At least semiannually, conduct a flow sensor calibration check.

(d) For each pressure measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (d)(1) through (7) of this section.

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

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

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

(4) Check the pressure tap daily to ensure that it is not plugged.

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

(6) Any time the sensor exceeds the manufacturer's specified maximum operating pressure range, conduct calibration checks or install a new pressure sensor.

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

(e) For each pH measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (e)(1) through (4) of this section.

(1) Locate the pH sensor in a position that provides a representative measurement of pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Check the pH meter's calibration on at least two points every 8 hours of process operation.

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

(f) For each bag leak detection system, you must meet the requirements in paragraphs (f)(1) through (11) of this section.

(1) Each triboelectric bag leak detection system must be installed, calibrated, operated, and maintained according to the ''Fabric Filter Bag Leak Detection Guidance,'' (EPA–454/R–98–015, September 1997). This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality Planning and Standards; Emissions, Monitoring and Analysis Division; Emission Measurement Center (MD–19), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Continuous Emission Monitoring. Other types of bag leak detection systems must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

(2) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(3) The bag leak detection system sensor must provide an output of relative PM loadings.

(4) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(5) The bag leak detection system must be equipped with an audible alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(6) For positive pressure fabric filter systems, a bag leak detector must be installed in each baghouse compartment or cell.

(7) For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter.

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

(9) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time according to section 5.0 of the ''Fabric Filter Bag Leak Detection Guidance.''

(10) Following initial adjustment of the system, the sensitivity or range, averaging period, alarm set points, or alarm delay time may not be adjusted except as detailed in your OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition. Record each adjustment.

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

(g) For each lime or chemical feed rate measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (g)(1) and (2) of this section.

(1) Locate the measurement device in a position that provides a representative feed rate measurement.

(2) At least semiannually, conduct a calibration check.

(h) Requests for approval of alternate monitoring procedures must meet the requirements in §§ 63.8445(i) and 63.8(f).

§ 63.8455 How do I demonstrate initial compliance with the emission limitations?

(a) You must demonstrate initial compliance with each emission limitation that applies to you according to Table 4 to this subpart.

(b) You must establish each site-specific operating limit in Table 2 to this subpart that applies to you according to the requirements in § 63.8445 and Table 3 to this subpart.

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.8480(e).

Continuous Compliance Requirements

§ 63.8465 How do I monitor and collect data to demonstrate continuous compliance?

(a) You must monitor and collect data according to this section.

(b) Except for periods of monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating. This includes periods of startup, shutdown, and malfunction when the affected source is operating.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities for purposes of calculating data averages. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. You must use all the valid data collected during all other periods in assessing compliance of the APCD and associated control system. Any averaging period for which you do not have valid monitoring data and such data are required constitutes a deviation of the monitoring requirements.

§ 63.8470 How do I demonstrate continuous compliance with the emission limitations?

(a) You must demonstrate continuous compliance with each emission limit and operating limit in Tables 1 and 2 to this subpart that applies to you according to the methods specified in Table 5 to this subpart.

(b) For each affected kiln that is equipped with an APCD that is not addressed in Table 2 to this subpart or that is using process changes as a means of meeting the emission limits in Table 1 to this subpart, you must demonstrate continuous compliance with each emission limit in Table 1 to this subpart, and each operating limit established as required in § 63.8445(i)(2) according to the methods specified in your approved alternative monitoring procedures request, as described in §§ 63.8445(i)(1) and 63.8(f).

(c) You must report each instance in which you did not meet each emission limit and each operating limit in this subpart that applies to you. This includes periods of startup, shutdown, and malfunction. These instances are deviations from the emission limitations in this subpart. These deviations must be reported according to the requirements in § 63.8485.

(d) During periods of startup, shutdown, and malfunction, you must operate according to your SSMP.

(e) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating according to your SSMP and your OM&M plan. The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in § 63.6(e).

Notifications, Reports, and Records

§ 63.8480 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8(f)(4), and 63.9 (b) through (e), (g)(1), and (h) that apply to you, by the dates specified.

(b) As specified in § 63.9(b)(2) and (3), if you start up your affected source before the [DATE OF PUBLICATION OF THE FINAL RULE IN THE Federal Register], you must submit an Initial Notification not later than 120 calendar days after [DATE OF PUBLICATION OF THE FINAL RULE IN THE Federal Register].

(c) As specified in § 63.9(b)(3), if you start up your new or reconstructed affected source on or after [DATE OF PUBLICATION OF THE FINAL RULE IN THE Federal Register], you must submit an 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 as specified in Table 3 to this subpart, you must submit a Notification of Compliance Status as specified in § 63.9(h) and paragraphs (e)(1) and (2) of this section.

(1) For each compliance demonstration that includes a

performance test conducted according to the requirements in Table 3 to this subpart, 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).

(2) In addition to the requirements in § 63.9(h)(2)(i), you must include the information in paragraphs (e)(2)(i) and (ii) of this section in your Notification of Compliance Status.

(i) The operating limit parameter values established for each affected source with supporting documentation and a description of the procedure used to establish the values.

(ii) For each APCD that includes a fabric filter, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in § 63.8450(f).

§ 63.8485 What reports must I submit and when?

(a) You must submit each report in Table 6 to this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 6 to this subpart and as specified 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 § 63.8395 and ending on June 30 or December 31, and lasting at least 6 months, but less than 12 months. For example, if your compliance date is March 1, then the first semiannual reporting period would begin on March 1 and end on December 31.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31 for compliance periods ending on June 30 and December 31, respectively.

(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 for compliance periods ending on June 30 and December 31, respectively.

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

(c) The compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

(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 SSMP and OM&M plan, the compliance report must include the information specified in § 63.10(d)(5)(i).

(5) If there are no deviations from any emission limitations (emission limits or operating limits) that apply to you, the compliance report must contain a statement that there were no deviations from the emission limitations during the reporting period.

(6) If there were no periods during which the CMS was out-of-control as specified in your OM&M plan, the compliance report must contain a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(d) For each deviation from an emission limitation (emission limit or operating limit) that occurs at an affected source where you are not using a CMS to comply with the emission limitations in this subpart, the compliance report must contain the information in paragraphs (c)(1) through (4) and paragraphs (d)(1) and (2) of this section. This includes periods of startup, shutdown, and malfunction.

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

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

(e) For each deviation from an emission limitation (emission limit or operating limit) occurring at an affected source where you are using a CMS to comply with the emission limitations in this subpart, you must include the information in paragraphs (c)(1) through (4) and paragraphs (e)(1) through (13) of this section. This includes periods of startup, shutdown, and malfunction.

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

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

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

(4) The date, time and duration that each CMS was out-of-control, including the information in your OM&M plan.

(5) 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.

(6) A description of corrective action taken in response to a deviation.

(7) 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.

(8) 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.

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

(10) A brief description of the process units.

(11) A brief description of the CMS.

(12) The date of the latest CMS certification or audit.

(13) A description of any changes in CMS, processes, or control equipment since the last reporting period.

(f) If you have obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71, you 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 according to Table 6 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), then submitting the compliance report will satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submitting a compliance report will not otherwise affect any obligation you may have to report

deviations from permit requirements to the permit authority.

§ 63.8490 What records must I keep?

(a) You must keep the records listed in paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status 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 as required in § 63.10(b)(2)(viii).

(b) You must keep the records required in Table 5 to this subpart to show continuous compliance with each emission limitation that applies to you.

(c) You must also maintain the records listed in paragraphs (c)(1) through (6) of this section.

(1) For each bag leak detection system, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken.

(2) For each deviation of an operating limit parameter value, the date, time, and duration of the deviation, a brief explanation of the cause of the deviation and the corrective action taken, and whether the deviation occurred during a period of startup, shutdown, or malfunction.

(3) For each affected source, records of production rates on a fired-product basis.

(4) Records for any approved alternative monitoring or test procedures.

(5) Records of maintenance and inspections performed on the APCD.

(6) Current copies of your SSMP and OM&M plan, including any revisions, with records documenting conformance.

§ 63.8495 In what form and how long must I keep my records?

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

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

(c) You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You may keep the records offsite for the remaining 3 years.

Other Requirements and Information

§ 63.8505 What parts of the General Provisions apply to me?

Table 7 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.8510 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the 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, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

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

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

(1) Approval of alternatives to the applicability requirements in §§ 63.8385 and 63.8390, the compliance date requirements in § 63.8395, and the non-opacity emission limitations in § 63.8405.

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

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

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

§ 63.8515 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:

Air pollution control device (APCD) means any equipment that reduces the quantity of a pollutant that is emitted to the air.

Bag leak detection system means an instrument that is capable of monitoring PM loadings in the exhaust of a fabric filter in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light-scattering, light-transmittance, or other effects to monitor relative PM loadings.

Brick and structural clay products (BSCP) manufacturing facility means a plant site that manufactures brick (face brick, structural brick, brick pavers, other brick) and/or structural clay products (clay pipe; roof tile; extruded floor and wall tile; or other extruded, dimensional clay products). Brick and structural clay products manufacturing facilities typically process raw clay and shale, form the processed materials into bricks or shapes, and dry and fire the bricks or shapes.

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

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

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

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

Dry lime injection fabric filter (DIFF) means an air pollution control device that includes continuous injection of hydrated lime or other sorbent into a duct or reaction chamber followed by a fabric filter.

Dry lime scrubber/fabric filter (DLS/FF) means an air pollution control device that includes continuous injection of humidified hydrated lime or other sorbent into a reaction chamber followed by a fabric filter. These systems typically include recirculation of some of the sorbent.

Emission limitation means any emission limit or operating limit.

Fabric filter means an air pollution control device used to capture PM by filtering a gas stream through filter media; also known as a baghouse.

Kiln exhaust process stream means the portion of the exhaust from a tunnel kiln that exhausts directly to the atmosphere (or to an air pollution control device), rather than to a sawdust dryer.

Particulate matter (PM) means, for purposes of this subpart, emissions of PM that serve as a measure of total particulate emissions, as measured by Method 5 (40 CFR part 60, appendix A),

and as a surrogate for metal HAP contained in the particulates including, but not limited to, antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium.

Plant site means all contiguous or adjoining property that is under common control, including properties that are separated only by a road or other public right-of-way. Common control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination thereof.

Research and development kiln means any kiln whose purpose is to conduct research and development for new processes and products and is not engaged in the manufacture of products for commercial sale.

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

Tunnel kiln means any continuous kiln that is used to fire BSCP. Some tunnel kilns have two process streams, including: a process stream that exhausts directly to the atmosphere or to an air pollution control device, and a process stream in which the kiln exhaust is ducted to a sawdust dryer where it is used to dry sawdust before being emitted to the atmosphere.

Tunnel kiln design capacity means the maximum amount of brick that a kiln is designed to produce in 1 hour. If a kiln is modified to increase the capacity, the design capacity is considered to be the capacity following modifications.

Wet scrubber (WS) means an *air pollution control device* that uses water, which may include caustic additives or other chemicals, as the sorbent. Wet scrubbers may use any of various design mechanisms to increase the contact between exhaust gases and the sorbent.

As stated in § 63.8405, you must meet each emission limit in the following table that applies to you:

TABLE 1 TO SUBPART JJJJJ OF PART 63.—EMISSION LIMITS

For each . . .	You must meet the following emission limits . . .	Or you must comply with the following . . .
1. Existing tunnel kiln with a design capacity of ≥9.07 Mg/hr (10 tph) of fired product, excluding any process stream that is ducted to a sawdust dryer prior to July 22, 2002; or including any process stream that exhausts directly to the atmosphere or to an APCD and any process stream that is first ducted to a sawdust dryer on or after July 22, 2002.	a. HF emissions must not exceed 0.014 kilograms per megagram (kg/Mg) (0.027 pounds per ton (lb/ton)) of fired product.	Reduce uncontrolled HF emissions by at least 95 percent.
	b. HCl emissions must not exceed 0.019 kg/Mg (0.037 lb/ton) of fired product.	Reduce uncontrolled HCl emissions by at least 90 percent.
	c. PM emissions must not exceed 0.06 kg/Mg (0.12 lb/ton) of fired product.	Not applicable.
2. New or reconstructed tunnel kiln, regardless of design capacity and including all process streams.	a. HF emissions must not exceed 0.014 kg/Mg (0.027 lb/ton) of fired product.	Reduce uncontrolled HF emissions by at least 95 percent.
	b. HCl emissions must not exceed 0.019 kg/Mg (0.037 lb/ton) of fired product.	Reduce uncontrolled HCl emissions by at least 90 percent.
	c. PM emissions must not exceed 0.060 kg/Mg (0.12 lb/ton) of fired product.	Not applicable.

As stated in § 63.8405, you must meet each operating limit in the following table that applies to you:

TABLE 2 TO SUBPART JJJJJ OF PART 63.—OPERATING LIMITS

For each . . .	You must . . .
1. Kiln equipped with a dry lime injection fabric filter (DIFF) or dry lime scrubber/fabric filter (DLS/FF).	a. Initiate corrective action within 1 hour of a bag leak detection system alarm and complete corrective actions in accordance with your OM&M plan; operate and maintain the fabric filter such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period; and b. Maintain the average fabric filter inlet temperature for each 3-hour block period at or below the average temperature, plus 14°C (25°F), established during the performance test; and c. Maintain free-flowing lime in the feed hopper or silo and to the APCD at all times for continuous injection systems; maintain the feeder setting at or above the level established during the performance test for continuous injection systems.
2. Kiln equipped with a DLS/FF.	Maintain the average water injection rate for each 3-hour block period at or above the level established during the performance test.
3. Kiln equipped with a wet scrubber (WS).	a. Maintain the average scrubber pressure drop for each 3-hour block period at or above the average pressure drop established during the performance test; and b. Maintain the average scrubber liquid pH for each 3-hour block period at or above the average scrubber liquid pH established during the performance test; and

TABLE 2 TO SUBPART JJJJJ OF PART 63.—OPERATING LIMITS—Continued

For each . . .	You must . . .
	c. Maintain the average scrubber liquid flow rate for each 3-hour block period at or above the average scrubber liquid flow rate established during the performance test; and d. If chemicals are added to the scrubber water, maintain the average scrubber chemical feed rate for each 3-hour block period at or above the average scrubber chemical feed rate established during the performance test.

As stated in § 63.8445, you must conduct each performance test in the following table that applies to you:

TABLE 3 TO SUBPART JJJJJ OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS

For each . . .	You must . . .	Using . . .	According to the following requirements . . .
1. Kiln	a. Select locations of sampling ports and the number of traverse points.	Method 1 or 1A of 40 CFR part 60, appendix A.	Sampling sites must be located at the outlet of the APCD and prior to any releases to the atmosphere for all affected sources. If you choose to meet the percent emission reduction requirements for HF or HCl, a sampling site must also be located at the APCD inlet.
	b. Determine velocities and volumetric flow rate.	Method 2 of 40 CFR part 60, appendix A.	You may use Method 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A, as appropriate, as an alternative to using Method 2 of 40 CFR part 60, appendix A.
	c. Conduct gas molecular weight analysis.	Method 3 of 40 CFR part 60, appendix A.	You may use 3A or 3B of 40 CFR part 60, appendix A, as appropriate, as an alternative to using Method 3 of 40 CFR part 60, appendix A.
	d. Measure moisture content of the stack gas.	Method 4 of 40 CFR part 60, appendix A.	
	e. Measure HF and HCl emissions.	Method 26A of 40 CFR part 60, appendix A.	Conduct the test while operating at the maximum production level. You may use Method 26 of 40 CFR part 60, appendix A, as an alternative to using Method 26A of 40 CFR part 60, appendix A, when no acid PM (*e.g.,* HF or HCl dissolved in water droplets emitted by sources controlled by a wet scrubber) is present.
	f. Measure PM emissions ..	Method 5 of 40 CFR part 60, appendix A.	Conduct the test while operating at the maximum production level.
2. Kiln that is complying with production-based emission limits.	Determine the production rate during each test run in order to determine compliance with production-based emission limits.	Production data collected during the performance tests (e.g., # of pushes per hour, # of bricks per kiln car, weight of a typical fired brick).	You must measure and record the production rate, on a fired-product basis, of the affected source for each of the three test runs.
3. Kiln equipped with a DIFF or DLS/FF.	a. Establish the operating limit for the average fabric filter inlet temperature.	Data from the temperature measurement device during the performance test.	You must continuously measure the temperature at the inlet to the fabric filter, determine and record the block average temperatures for the three test runs, and determine and record the 3-hour block average of the recorded temperature measurements for the three test runs.
	b. Establish the operating limit for the lime feeder setting.	Data from the lime feeder during the performance test.	For continuous lime injection systems, you must ensure that lime in the feed hopper or silo and to the APCD is free-flowing at all times during the performance test and record the feeder setting for the three test runs. If the feed rate setting varies during the three test runs, determine and record the average feed rate from the three test runs.
4. Kiln equipped with a DLS/FF.	Establish the operating limit for the average water injection rate.	Data from the water injection rate measurement device during the performance test.	You must continuously measure the water injection rate, determine and record the block average water injection rate values for the three test runs, and determine and record the 3-hour block average of the recorded water injection rate measurements for the three test runs.

TABLE 3 TO SUBPART JJJJJ OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS—Continued

For each . . .	You must . . .	Using . . .	According to the following requirements . . .
5. Kiln equipped with a WS	a. Establish the operating limit for the average scrubber pressure drop.	Data from the pressure drop measurement device during the performance test.	You must continuously measure the scrubber pressure drop, determine and record the block average pressure drop values for the three test runs, and determine and record the 3-hour block average of the recorded pressure drop measurements for the three test runs.
	b. Establish the operating limit for the average scrubber liquid pH.	Data from the pH measurement device during the performance test.	You must continuously measure the scrubber liquid pH, determine and record the block average pH values for the three test runs, and determine and record the 3-hour block average of the recorded pH measurements for the three test runs.
	c. Establish the operating limit for the average scrubber liquid flow rate.	Data from the flow rate measurement device during the performance test.	You must continuously measure the scrubber liquid flow rate, determine and record the block average flow rate values for the three test runs, and determine and record the 3-hour block average of the recorded flow rate measurements for the three test runs.
6. Kiln equipped with a WS that includes chemical addition to the water.	Establish the operating limit for the average scrubber chemical feed rate.	Data from the chemical feed rate measurement device during the performance test.	You must continuously measure the scrubber chemical feed rate, determine and record the block average chemical feed rate values for the three test runs, and determine and record the 3-hour block average of the recorded chemical feed rate measurements for the three test runs.

As stated in § 63.8455, you must demonstrate initial compliance with each emission limitation that applies to you according to the following table:

TABLE 4 TO SUBPART JJJJJ OF PART 63.—INITIAL COMPLIANCE WITH EMISSION LIMITATIONS

For each . . .	For the following emission limitation . . .	You have demonstrated initial compliance if . . .
1. Tunnel kiln	a. HF emissions must not exceed 0.014 kg/Mg (0.027 lb/ton) of fired product; or uncontrolled HF emissions must be reduced by at least 95 percent; and	i. The HF emissions measured using Method 26A of 40 CFR part 60, appendix A, over the period of the initial performance test, according to the calculations in § 63.8445(g)(1), do not exceed 0.014 kg/Mg (0.027 lb/ton); or Uncontrolled HF measured using Method 26A of 40 CFR part 60, appendix A, over the period of the initial performance test are reduced by at least be reduced by at 95 percent, according to the calculations least in § 63.8445(g)(2); and ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the 3-hour performance test during which HF emissions did not exceed 0.014 kg/Mg (0.027 lb/ton) or uncontrolled HF emissions were reduced by at least 95 percent.
	b. HCl emissions must not exceed 0.019 kg/Mg (0.037 lb/ton) of fired product; or uncontrolled HC1 emissions must be reduced by at least 90 percent; and	The HC1 emissions measured using Method 26A of 40 CFR part 60, appendix A, over the period of the initial performance test, according to the calculations in 63.8445(g)(1), do not exceed 0.019 kg/Mg (0.037 lb/ton); or uncontrolled HC1 emissions measured using Method 26A of 40 CFR part 60, appendix A, over the period of the initial performance test are reduced by at least 90 percent, according to the calculations in § 63.8445(g)(2); and ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the 3-hour performance test during which HC1 emissions did not exceed 0.019 kg/Mg (0.037 lb/ton) or uncontrolled HC1 emissions were reduced by at least 90 percent.
	c. PM emissions must not exceed 0.06 kg/Mg (0.12 lb/ton) of fired product.	i. The PM emissions measured using Method 5 of 40 CFR part 60, appendix A, over the period of the initial performance test, according to the calculations in § 63.8445(g)(1), do not exceed 0.06 kg/Mg (0.12 lb/ton); and ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the 3-hour performance test during which PM emissions did not exceed 0.06 kg/Mg (0.12 lb/ton).

As stated in § 63.8470, you must demonstrate continuous compliance with each emission limit and operating limit that applies to you according to the following table:

TABLE 5 TO SUBPART JJJJJ OF PART 63.—CONTINUOUS COMPLIANCE WITH EMISSION LIMITS AND OPERATING LIMITS

For each . . .	For the following emission limits and operating limits . . .	You must demonstrate continuous compliance by . . .
1. Kiln equipped with a DIFF or DLS/FF.	a. Each emission limit in Table 1 to this subpart and each operating limit in Item 1 of Table 2 to this subpart for kilns equipped with DIFF or DLS/FF.	i. Initiating corrective action within 1 hour of a bag leak detection system alarm and completing corrective actions in accordance with your OM&M plan; operating and maintaining the fabric filter such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period; in calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted; if corrective action is required, each alarm is counted as a minimum of 1 hour; if you take longer than 1 hour to initiate corrective action, the alarm time is counted as the actual amount of time taken by you to initiate corrective action; and ii. Collecting the fabric filter inlet temperature data according to §63.8450(a); reducing the fabric filter inlet temperature data to 3-hour block averages according to §63.8450(a); maintaining the average fabric filter inlet temperature for each 3-hour block period at or below the average temperature, plus 14°C (25°F), established during the performance test; and iii. Verifying that lime is free-flowing via a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system, or other system; recording all monitor or sensor output, and if lime is found not to be free flowing, promptly initiating and completing corrective actions in accordance with your OM&M plan; recording the feeder setting once each shift of operation to verify that the feeder setting is being maintained at or above the level established during the performance test.
2. Kiln equipped with a DLS/FF	Each emission limit in Table 1 to this subpart and each operating limit in Item 2 of Table 2 to this subpart for kilns equipped with DLS/FF.	Collecting the water injection rate data according to §63.8450(a); reducing the water injection rate data to 3-hour block averages according to §63.8450(a); maintaining the average water injection rate for each 3-hour block period at or above the average water injection rate established during the performance test.
3. Kiln equipped with a WS	a. Each emission limit in Table 1 to this subpart and each operating limit in Item 3 of Table 2 to this subpart for kilns equipped with WS.	i. Collecting the scrubber pressure drop data according to §63.8450(a); reducing the scrubber pressure drop data to 3-hour block averages according to §63.8450(a); maintaining the average scrubber pressure drop for each 3-hour block period at or above the average pressure drop established during the performance test; and ii. Collecting the scrubber liquid pH data according to §63.8450(a); reducing the scrubber liquid pH data to 3-hour block averages according to §63.8450(a); maintaining the average scrubber liquid pH for each 3-hour block period at or above the average scrubber liquid pH established during the performance test; and iii. Collecting the scrubber liquid flow rate data according to §63.8450(a); reducing the scrubber liquid flow rate data to 3-hour block averages according to §63.8450(a); maintaining the average scrubber liquid flow rate for each 3-hour block period at or above the average scrubber liquid flow rate established during the performance test; and iv. If chemicals are added to the scrubber water, collecting the scrubber chemical feed rate data according to §63.8450(a); reducing the scrubber chemical feed rate data to 3-hour block averages according to §63.8450(a); maintaining the average scrubber

As stated in §63.8485, you must submit each report that applies to you according to the following table:

TABLE 6 TO SUBPART JJJJJ OF PART 63.—REQUIREMENTS FOR REPORTS

You must submit . . .	The report must contain . . .	You must submit the report . . .
1. A compliance report	a. If there are no deviations from any emission limitations (emission limit, operating limit) that apply to you, a statement that there were no deviations from the emission limitations during the reporting period. If there were no periods during which the CMS was out-of-control as specified in your OM&M plan, a statement that there were no periods during which the CMS was out- of-control during the reporting period.	Semiannually according to the requirements in § 63.8485(b)
	b. If you have a deviation from any emission limitation (emission limit, operating limit) during the reporting period, the report must contain the information in § 63.8485(d) or (e). If there were periods during which the CMS was out-of-control, as specified in your OM&M plan, the report must contain the information in § 63.8485(e).	Semiannually according to the requirements in § 63.8485(b)
	c. If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in § 63.10(d)(5)(i).	Semiannually according to the requirements in § 63.8485(b)
2. An immediate startup, shutdown, and malfunction report if you took actions during a startup, shutdown, or malfunction during the reporting period that are not consistent with your SSMP.	a. Actions taken for the event according to the requirements in § 63.10(d)(5)(ii).	By fax or telephone within 2 working days after starting actions inconsistent with the plan
	b. The information in § 63.10(d)(5)(ii)	By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority

As stated in § 63.8505, you must comply with the General Provisions in §§ 63.1–63.15 that apply to you according to the following table:

TABLE 7 TO SUBPART JJJJJ OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART JJJJJ

Citation	Subject	Brief Description	Applies to Subpart JJJJJ
§ 63.1	Applicability		Yes.
§ 63.2	Definitions		Yes.
§ 63.3	Units and Abbreviation		Yes.
§ 63.4	Prohibited Activities	Compliance date; circumvention, severability.	Yes.
§ 63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes.
§ 63.6(a)	Applicability	General Provisions (GP) apply unless compliance extension; GP apply to area sources that become major.	Yes.
§ 63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed sources.	Standards apply at effective date; 3 years after effective date; Upon startup; 10 years after construction or reconstruction commences for section 112(f).	Yes.
§ 63.6(b)(5)	Notification		Yes.
§ 63.6(b)(6)	[Reserved].		
§ 63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major.	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were area sources.	Yes.

TABLE 7 TO SUBPART JJJJJ OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART JJJJJ—Continued

Citation	Subject	Brief Description	Applies to Subpart JJJJJ
§ 63.6(c)(1)–(2)	Compliance Dates for Existing Sources	Comply according to date in subpart, which must be no later than 3 years after effective date; for section 112(f) standards, comply within 90 days of effective date unless compliance extension.	Yes.
§ 63.6(c)(3)–(4)	[Reserved].		
§ 63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major.	Area sources that become major must comply with major source standards by date indicated in subpart or by equivalent time period (for example, 3 years).	Yes.
§ 63.6(d)	[Reserved].		
§ 63.6(e)(1)–(2)	Operation & Maintenance	Operate to minimize emissions at all times; correct malfunctions as soon as practicable; requirements independently enforceable; information Administrator will use to determine if operations and maintenance requirements were met.	Yes.
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan (SSMP).		Yes.
§ 63.6(f)(1)	Compliance Except During SSM	You must comply with emissions standards at all times except during SSM.	Yes.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection.	Yes.
§ 63.6(g)	Alternative Standard	Procedures for getting an alternative standard.	Yes.
§ 63.6(h)	Opacity/Visible Emission (VE) Standards		No, not applicable.
§ 63.6(i)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension.	Yes.
§ 63.6(j)	Presidential Compliance Exemption	President may exempt source category	Yes.
§ 63.7(a)(1)–(2)	Performance Test Dates	Dates for conducting initial performance testing and other compliance demonstrations; must conduct 180 days after first subject to rule.	Yes.
§ 63.7(a)(3)	§ 114 Authority	Adminstrator may require a performance test under CAA § 114 at any time.	Yes.
§ 63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test.	Yes.
§ 63.7(b)(2)	Notification of Rescheduling	Must notify Administrator 5 days before scheduled date of rescheduled date.	Yes.
§ 63.7(c)	Quality Assurance (QA) Test Plan	Requirements; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing.	Yes.
§ 63.7(d)	Testing Facilities		Yes.
§ 63.7(e)(1)	Conditions for Conducting Performance Tests.	Performance tests must be conducted under representative conditions. Cannot conduct performance tests during SSM; not a violation to exceed standard during SSM.	No, § 63.8445 specifies requirements. Yes.

TABLE 7 TO SUBPART JJJJJ OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART JJJJJ—Continued

Citation	Subject	Brief Description	Applies to Subpart JJJJJ
63.7(e)(2)–(3)	Conditions for Conducting Performance Tests.	Must conduct according to subpart and EPA test methods unless Administrator approved alternative; must have at least three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used.	Yes.
§ 63.7(f)	Alternative Test Method		Yes.
§ 63.7(g)	Performance Test Data Analysis		Yes.
§ 63.7(h)	Waiver of Test		Yes.
§ 63.8(a)(1)	Applicability of Monitoring Requirements		Yes.
§ 63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of 40 CFR part 60 apply.	Yes.
§ 63.8(a)(3)	[Reserved].		
§ 63.8(a)(4)	Monitoring with Flares		No, not applicable.
§ 63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative.	Yes.
§ 63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring System.	Specific requirements for installing and reporting on monitoring systems.	Yes.
§ 63.8(c)(1)	Monitoring System Operation and Maintenance.	Maintenance consistent with good air pollution control practices.	Yes.
§ 63.8(c)(1)(i)	Routine and Predictable SSM	Reporting requirements for SSM when action is described in SSMP.	Yes.
§ 63.8(c)(1)(ii)	SSM not in SSMP	Reporting requirements for SSM when action is not described in SSMP.	Yes.
§ 63.8(c)(1)(iii)	Compliance with Operation and Maintenance Requirements.	How Administrator determines if source complying with operation and maintenance requirements.	Yes.
§ 63.8(c)(2)–(3)	Monitoring System Installation	Must install to get representative emission and parameter measurements.	Yes.
§ 63.8(c)(4)	Continuous Monitoring System (CMS) Requirements.		No, § 63.8465 specifies requirements.
§ 63.8(c)(5)	Continuous Opacity Monitoring System (COMS) Minimum Procedures.		No, not applicable.
§ 63.8(c)(6)	CMS Requirements		No, § 63.8425 specifies requirements.
§ 63.8(c)(7)–(8)	CMS Requirements		No, § 63.8425 specifies requirements.
§ 63.8(d)	CMS Quality Control		No, § 63.8425 specifies requirements.
§ 63.8(e)	CMS Performance Evaluation		No, § 63.8425 specifies requirements.
§ 63.8(f)(1)–5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring.	Yes.
§ 63.8(f)	Alternative to Relative Accuracy		No, not applicable.
§ 63.8(g)	Data Reduction		No, not applicable.

TABLE 7 TO SUBPART JJJJJ OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART JJJJJ—Continued

Citation	Subject	Brief Description	Applies to Subpart JJJJJ
§ 63.9(a)	Notification Requirements		Yes.
§ 63.9(b)	Initial Notification		Yes.
§ 63.9(c)	Request for Compliance Extension		Yes.
§ 63.9(d)	Notification of Special Compliance Requirements for New Source.		Yes.
§ 63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes.
§ 63.9(f)	Notification of VE/Opacity Test		No, not applicable.
§ 63.9(g)(1)	Additional Notification When Using CMS		Yes.
§ 63.9(g)(2)–(3)	Additional Notification When Using CMS		No, not applicable.
§ 63.9(h)	Notification of Compliance Status		Yes.
§ 63.9(i)	Adjustment of Submittal Deadlines		Yes.
§ 63.9(j)	Change in Previous Information		Yes.
§ 63.10(a)	Recordkeeping/Reporting		Yes.
§ 63.10(b)(1)	General Recordkeeping Requirements		Yes.
§ 63.10(b)(2)(1)–(v)	Records Related to Startup, Shutdown, and Malfunction.		Yes.
§ 63.10(b)(2)(vi)–(xii) and (xiv).	CMS Records		Yes.
§ 63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test.	No, not applicable.
§ 63.10(b)(3)	Records	Applicability Determinations	Yes.
§ 63.10(c)(1)–(15)	Records		No, §§ 63.8425 and 63.8490 specify requirements.
§ 63.10(d)(1) and (2)	General Reporting Requirements	Requirements for reporting	Yes.
§ 63.10(d)(3)	Reporting Opacity or VE Observations		No, not applicable.
§ 63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension..	Yes.
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports.	Contents and submission	Yes.
§ 63.10(e)(1)–(3)	Additional CMS Reports		No, §§ 63.8425 and 63.8485 specify requirements.
§ 63.10(e)(4)	Reporting COMS data		No, not applicable.
§ 63.10(f)	Waiver for Recordkeeping/Reporting		Yes.
§ 63.11	Flares		No, not applicable.
§ 63.12	Delegation		Yes.
§ 63.13	Addresses		Yes.
§ 63.14	Incorporation by Reference		Yes.
§ 63.15	Availability of Information		Yes.

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

Subpart KKKKK—National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing

Sec.

What This Subpart Covers

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Emission Limitations

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63.8655 What parts of the General Provisions apply to me?
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Tables to Subpart KKKKK of Part 63

Table 1 to Subpart KKKKK of Part 63—Emission Limits
Table 2 to Subpart KKKKK of Part 63—Operating Limits
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Table 6 to Subpart KKKKK of Part 63—Requirements for Reports
Table 7 to Subpart KKKKK of Part 63—Applicability of General Provisions to Subpart KKKKK

Subpart KKKKK—National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing

What This Subpart Covers

§ 63.8530 What is the purpose of this subpart?

This subpart establishes national emission limitations for hazardous air pollutants (HAP) emitted from clay ceramics manufacturing facilities. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§ 63.8535 Am I subject to this subpart?

You are subject to this subpart if you own or operate a clay ceramics manufacturing facility that is, is located at, or is part of a major source of HAP emissions according to the criteria in paragraphs (a) and (b) of this section.

(a) A clay ceramics manufacturing facility is a plant site that manufactures pressed floor tile, pressed wall tile, other pressed tile, or sanitaryware (*e.g.,* sinks and toilets). Clay ceramics manufacturing facilities typically process clay, shale, and various additives; form the processed materials into tile or sanitaryware shapes; and dry and fire the ceramic products. Glazes are applied to many tile and sanitaryware products.

(b) A major source of HAP emissions is any stationary source or group of stationary sources within a contiguous area under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (10 tons) or more per year or any combination of HAP at a rate of 22.68 megagrams (25 tons) or more per year.

§ 63.8540 What parts of my plant does this subpart cover?

(a) This subpart applies to each new or reconstructed affected source at a clay ceramics manufacturing facility.

(b) Each new or reconstructed tunnel kiln and roller kiln is an affected source.

(c) Kilns that are used exclusively for research and development (R&D) and are not used to manufacture products for commercial sale are not subject to the requirements of this subpart.

(d) Kilns that are used exclusively for setting glazes on previously fired products or for refiring are not subject to the requirements of this subpart.

(e) A source is a new affected source if construction of the affected source began after July 22, 2002, and you met the applicability criteria at the time you began construction.

(f) An affected source is reconstructed if you meet the criteria as defined in § 63.2.

§ 63.8545 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section.

(1) If the initial startup of your affected source is before [DATE OF PUBLICATION OF THE FINAL RULE IN THE **Federal Register**], then you must comply with the emission limitations for new and reconstructed sources in this subpart no later than [DATE OF PUBLICATION OF THE FINAL RULE IN THE **Federal Register**].

(2) If the initial startup of your affected source is after [DATE OF PUBLICATION OF THE FINAL RULE IN THE **Federal Register**], then you must comply with the emission limitations for new and reconstructed sources in this subpart upon initial startup of your affected source.

(b) If you have an existing area source that increases its emissions or its potential to emit such that it becomes a major source of HAP by adding a new affected source or by reconstructing, you must be in compliance with this subpart upon initial startup of your affected source as a major source.

(c) If you have a new area source (i.e., an area source for which construction or reconstruction was commenced after July 22, 2002) that increases its emissions or its potential to emit such that it becomes a major source of HAP, you must be in compliance with this subpart upon initial startup of your affected source as a major source.

(d) You must meet the notification requirements in § 63.8630 according to the schedule in § 63.8630 and in 40 CFR part 63, subpart A. Some of the notifications must be submitted before you are required to comply with the emission limitations in this subpart.

Emission Limitations

§ 63.8555 What emission limitations must I meet?

(a) You must meet each emission limit in Table 1 to this subpart that applies to you.

(b) You must meet each operating limit in Table 2 to this subpart that applies to you.

§ 63.8560 What are my options for meeting the emission limitations?

To meet the emission limitations in Tables 1 and 2 to this subpart, you must use one or more of the options listed in paragraphs (a) and (b) of this section.

(a) *Emissions control system.* Use an emissions capture and collection system and an air pollution control device (APCD) and demonstrate that the resulting emissions or emissions reductions meet the emission limits in Table 1 to this subpart, and that the capture and collection system and APCD meet the applicable operating limits in Table 2 to this subpart.

(b) *Process changes.* Use low-HAP raw materials or implement manufacturing process changes and demonstrate that the resulting emissions or emissions reductions meet the emission limits in Table 1 to this subpart.

General Compliance Requirements

§ 63.8570 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations (including operating limits) in this subpart at all times, except during periods of startup, shutdown, and malfunction.

(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i). During the period between the compliance date specified for your affected source in § 63.8545 and the date upon which continuous monitoring systems (CMS) (*e.g.,* continuous parameter monitoring systems) have been installed and verified 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 (SSMP) according to the provisions in § 63.6(e)(3).

(d) You must prepare and implement a written operation, maintenance, and monitoring (OM&M) plan according to the requirements in § 63.8575.

(e) You must be in compliance with the provisions of subpart A of this part, except as noted in Table 7 to this subpart.

§ 63.8575 What do I need to know about operation, maintenance, and monitoring plans?

(a) You must prepare, implement, and revise as necessary an OM&M plan that includes the information in paragraph (b) of this section. Your OM&M plan must be available for inspection by the permitting authority upon request.

(b) Your OM&M plan must include, as a minimum, the information in paragraphs (b)(1) through (12) of this section.

(1) Each process and APCD to be monitored, the type of monitoring device that will be used, and the operating parameters that will be monitored.

(2) A monitoring schedule that specifies the frequency that the parameter values will be determined and recorded.

(3) The limits for each parameter that represent continuous compliance with the emission limitations in § 63.8555. The limits must be based on values of the monitored parameters recorded during performance tests.

(4) Procedures for the proper operation and routine and long-term maintenance of each process unit and APCD, including a maintenance and inspection schedule that is consistent with the manufacturer's recommendations.

(5) Procedures for installing the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last APCD).

(6) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction system.

(7) Continuous monitoring system performance evaluation procedures and acceptance criteria (e.g., calibrations).

(8) Procedures for the proper operation and maintenance of monitoring equipment consistent with the requirements in §§ 63.8600 and 63.8(c)(1), (3), (4)(ii), (7), and (8).

(9) Continuous monitoring system data quality assurance procedures consistent with the requirements in § 63.8(d).

(10) Continuous monitoring system recordkeeping and reporting procedures consistent with the requirements in § 63.10(c), (e)(1), and (e)(2)(i).

(11) Procedures for responding to operating parameter deviations, including the procedures in paragraphs (b)(11)(i) through (iii) of this section.

(i) Procedures for determining the cause of the operating parameter deviation.

(ii) Actions for correcting the deviation and returning the operating parameters to the allowable limits.

(iii) Procedures for recording the times that the deviation began and ended, and corrective actions were initiated and completed.

(12) Procedures for keeping records to document compliance.

(c) Changes to the operating limits in your OM&M plan require a new performance test. If you are revising an operating limit parameter value, you must meet the requirements in paragraphs (c)(1) and (2) of this section.

(1) Submit a notification of performance test to the Administrator as specified in § 63.7(b).

(2) After completing the performance test to demonstrate that compliance with the emission limits can be achieved at the revised operating limit parameter value, you must submit the performance test results and the revised operating limits as part of the Notification of Compliance Status required under § 63.9(h).

(d) If you are revising the inspection and maintenance procedures in your OM&M plan, you do not need to conduct a new performance test.

Testing and Initial Compliance Requirements

§ 63.8585 By what date must I conduct performance tests?

You must conduct performance tests within 180 calendar days after the compliance date that is specified for your source in § 63.8545 and according to the provisions in § 63.7(a)(2).

§ 63.8590 When must I conduct subsequent performance tests?

(a) You must conduct a performance test before renewing your 40 CFR part 70 operating permit or at least every 5 years following the initial performance test.

(b) You must conduct a performance test when you want to change the parameter value for any operating limit specified in your OM&M plan.

§ 63.8595 How do I conduct performance tests and establish operating limits?

(a) You must conduct each performance test in Table 3 to this subpart that applies to you.

(b) Before conducting the performance test, you must install and calibrate all monitoring equipment.

(c) Each performance test must be conducted according to the requirements in § 63.7 and under the specific conditions in Table 3 to this subpart.

(d) You must test while operating at the maximum production level.

(e) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1).

(f) You must conduct at least three separate test runs for each performance

test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour.

(g) You must use the data gathered during the performance test and the equations in paragraphs (g)(1) and (2) of this section to determine compliance with the emission limitations:

(1) To determine compliance with the production-based hydrogen fluoride (HF), hydrogen chloride (HCl), and particulate matter (PM) emission limits in Table 1 to this subpart, you must calculate your mass emissions per unit of production for each test run using Equation 1 of this section:

$$MP = \frac{ER}{P} \qquad \text{(Eq. 1)}$$

Where:

MP = mass per unit production, kilograms (pounds) of pollutant per megagram (ton) of fired product

ER = mass emission rate of pollutant (HF, HCl, or PM) during each performance test run, kilograms (pounds) per hour

P = production rate during each performance test run, megagrams (tons) of fired product per hour.

(2) To determine compliance with any of the emission limits based on percent reduction across an emissions control system in Table 1 to this subpart, you must calculate the percent reduction for each test run using Equation 2 of this section:

$$PR = \frac{ER_i - ER_o}{ER_i}(100) \qquad \text{(Eq. 2)}$$

Where:

PR = percent reduction, percent

ER_i = mass emission rate of specific HAP (HF or HCl) entering the APCD, kilograms (pounds) per hour

ER_o = mass emission rate of specific HAP (HF or HCl) exiting the APCD, kilograms (pounds) per hour.

(h) You must establish each site-specific operating limit in Table 2 to this subpart that applies to you as specified in Table 3 to this subpart.

(i) For each affected kiln that is equipped with an APCD that is not addressed in Table 2 to this subpart or that is using process changes as a means of meeting the emission limits in Table 1 to this subpart, you must meet the requirements in § 63.8(f) and paragraphs (i)(1) and (2) of this section.

(1) Submit a request for approval of alternative monitoring procedures to the Administrator no later than the notification of intent to conduct a performance test. The request must contain the information specified in paragraphs (i)(1)(i) through (iv) of this section.

(i) A description of the alternative APCD or process changes.

(ii) The type of monitoring device or procedure that will be used.

(iii) The operating parameters that will be monitored.

(iv) The frequency that the operating parameter values will be determined and recorded to establish continuous compliance with the operating limits.

(2) Establish site-specific operating limits during the performance test based on the information included in the approved alternative monitoring procedures request and, as applicable, as specified in Table 3 to this subpart.

§ 63.8600 What are my monitoring installation, operation, and maintenance requirements?

(a) You must install, operate, and maintain each CMS according to your OM&M plan and the requirements in paragraphs (a)(1) through (5) of this section.

(1) Conduct a performance evaluation of each CMS according to your OM&M plan.

(2) The CMS must complete a minimum of one cycle of operation for each successive 15-minute period. To have a valid hour of data, you must have at least three of four equally spaced data values (or at least 75 percent if you collect more than four data values per hour) for that hour (not including startup, shutdown, malfunction, or out-of-control periods).

(3) Determine and record the 3-hour block averages of all recorded readings, calculated after every 3 hours of operation as the average of the previous 3 operating hours. To calculate the average for each 3-hour average period, you must have at least 75 percent of the recorded readings for that period (not including startup, shutdown, malfunction, or out-of-control periods).

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

(5) At all times, maintain the monitoring equipment including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(b) For each temperature monitoring device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (b)(1) through (7) of this section.

(1) Locate the temperature sensor in a position that provides a representative temperature.

(2) Use a temperature sensor with a minimum measurement sensitivity of 2.2°C (4.0°F) or 0.75 percent of the temperature value, whichever is larger.

(3) Shield the temperature sensor system from electromagnetic interference and chemical contaminants.

(4) If a chart recorder is used, it must have a sensitivity in the minor division of at least 11.1°C (20°F).

(5) At least semiannually, perform an electronic calibration according to the procedures in the manufacturer's owners manual. Following the electronic calibration, conduct a temperature sensor validation check in which a second or redundant temperature sensor placed nearby the process temperature sensor must yield a reading within 16.7°C (30.1°F) of the process temperature sensor's reading.

(6) Any time the sensor exceeds the manufacturer's specified maximum operating temperature range, conduct calibration and validation checks or install a new temperature sensor.

(7) At least monthly, inspect all components for integrity and all electrical connections for continuity, oxidation, and galvanic corrosion.

(c) For each liquid flow measurement device (e.g., to determine dry lime scrubber/fabric filter water injection rate or wet scrubber liquid flow rate), you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (c)(1) through (3) of this section.

(1) Locate the flow sensor in a position that provides a representative flowrate.

(2) Use a flow sensor with a minimum measurement sensitivity of 2 percent of the liquid flowrate.

(3) At least semiannually, conduct a flow sensor calibration check.

(d) For each pressure measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (d)(1) through (7) of this section.

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

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

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

(4) Check the pressure tap daily to ensure that it is not plugged.

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

(6) Any time the sensor exceeds the manufacturer's specified maximum operating pressure range, conduct

calibration checks or install a new pressure sensor.

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

(e) For each pH measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (e)(1) through (4) of this section.

(1) Locate the pH sensor in a position that provides a representative measurement of pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Check the pH meter's calibration on at least two points every 8 hours of process operation.

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

(f) For each bag leak detection system, you must meet the requirements in paragraphs (f)(1) through (11) of this section.

(1) Each triboelectric bag leak detection system must be installed, calibrated, operated, and maintained according to the ''Fabric Filter Bag Leak Detection Guidance,'' (EPA–454/R–98–015, September 1997). This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality Planning and Standards; Emissions, Monitoring and Analysis Division; Emission Measurement Center (MD–19), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center, Continuous Emission Monitoring. Other types of bag leak detection systems must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

(2) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

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

(4) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(5) The bag leak detection system must be equipped with an audible alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(6) For positive pressure fabric filter systems, a bag leak detector must be installed in each baghouse compartment or cell.

(7) For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter.

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

(9) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time according to section 5.0 of the ''Fabric Filter Bag Leak Detection Guidance.''

(10) Following initial adjustment of the system, the sensitivity or range, averaging period, alarm set points, or alarm delay time may not be adjusted except as detailed in your OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition. Record each adjustment.

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

(g) For each lime or chemical feed rate measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (g)(1) and (2) of this section.

(1) Locate the measurement device in a position that provides a representative feed rate measurement.

(2) At least semiannually, conduct a calibration check.

(h) Requests for approval of alternate monitoring procedures must meet the requirements in §§ 63.8595(i) and 63.8(f).

§ 63.8605 How do I demonstrate initial compliance with the emission limitations?

(a) You must demonstrate initial compliance with each emission limitation that applies to you according to Table 4 to this subpart.

(b) You must establish each site-specific operating limit in Table 2 to this subpart that applies to you according to the requirements in § 63.8595 and Table 3 to this subpart.

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.8630(e).

Continuous Compliance Requirements

§ 63.8615 How do I monitor and collect data to demonstrate continuous compliance?

(a) You must monitor and collect data according to this section.

(b) Except for periods of monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating. This includes periods of startup, shutdown, and malfunction when the affected source is operating.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities for purposes of calculating data averages. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. You must use all the valid data collected during all other periods in assessing compliance of the APCD and associated control system. Any averaging period for which you do not have valid monitoring data and such data are required constitutes a deviation of the monitoring requirements.

§ 63.8620 How do I demonstrate continuous compliance with the emission limitations?

(a) You must demonstrate continuous compliance with each emission limit and operating limit in Tables 1 and 2 to this subpart that applies to you according to the methods specified in Table 5 to this subpart.

(b) For each affected kiln that is equipped with an APCD that is not addressed in Table 2 to this subpart or that is using process changes as a means of meeting the emission limits in Table 1 to this subpart, you must demonstrate continuous compliance with each emission limit in Table 1 to this subpart, and each operating limit established as required in § 63.8595(i)(2) according to the methods specified in your approved alternative monitoring procedures request, as described in §§ 63.8595(i)(1) and 63.8(f).

(c) You must report each instance in which you did not meet each emission limit and each operating limit in this subpart that applies to you. This includes periods of startup, shutdown, and malfunction. These instances are

deviations from the emission limitations in this subpart. These deviations must be reported according to the requirements in § 63.8635.

(d) During periods of startup, shutdown, and malfunction, you must operate according to your SSMP.

(e) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating according to your SSMP and your OM&M plan. The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in § 63.6(e).

Notifications, Reports, and Records

§ 63.8630 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e), (g)(1), and (h) that apply to you, by the dates specified.

(b) As specified in § 63.9(b)(2) and (3), if you start up your affected source before [DATE OF PUBLICATION OF THE FINAL RULE IN THE **Federal Register**], you must submit an Initial Notification not later than 120 calendar days after [DATE OF PUBLICATION OF THE FINAL RULE IN THE **Federal Register**].

(c) As specified in § 63.9(b)(3), if you start up your new or reconstructed affected source on or after [DATE OF PUBLICATION OF THE FINAL RULE IN THE **Federal Register**], you must submit an 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 as specified in Table 3 to this subpart, you must submit a Notification of Compliance Status as specified in § 63.9(h) and paragraphs (e)(1) and (2) of this section.

(1) For each compliance demonstration that includes a performance test conducted according to the requirements in Table 3 to this subpart, 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).

(2) In addition to the requirements in § 63.9(h)(2)(i), you must include the information in paragraphs (e)(2)(i) and (ii) of this section in your Notification of Compliance Status:

(i) The operating limit parameter values established for each affected source with supporting documentation and a description of the procedure used to establish the values.

(ii) For each APCD that includes a fabric filter, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in § 63.8600(f).

§ 63.8635 What reports must I submit and when?

(a) You must submit each report in Table 6 to this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 6 to this subpart and as specified 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 § 63.8545 and ending on June 30 or December 31, and lasting at least 6 months, but less than 12 months. For example, if your compliance date is March 1, then the first semiannual reporting period would begin on March 1 and end on December 31.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31 for compliance periods ending on June 30 and December 31, respectively.

(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 for compliance periods ending on June 30 and December 31, respectively.

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

(c) The compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate and complete.

(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 SSMP and OM&M plan, the compliance report must include the information specified in § 63.10(d)(5)(i).

(5) If there are no deviations from any emission limitations (emission limits or operating limits) that apply to you, the compliance report must contain a statement that there were no deviations from the emission limitations during the reporting period.

(6) If there were no periods during which the CMS was out-of-control as specified in your OM&M plan, the compliance report must contain a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(d) For each deviation from an emission limitation (emission limit or operating limit) that occurs at an affected source where you are not using a CMS to comply with the emission limitations in this subpart, the compliance report must contain the information in paragraphs (c)(1) through (4) and paragraphs (d)(1) and (2) of this section. This includes periods of startup, shutdown, and malfunction.

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

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

(e) For each deviation from an emission limitation (emission limit or operating limit) occurring at an affected source where you are using a CMS to comply with the emission limitations in this subpart, you must include the information in paragraphs (c)(1) through (4) and paragraphs (e)(1) through (13) of this section. This includes periods of startup, shutdown, and malfunction.

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

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

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

(4) The date, time and duration that each CMS was out-of-control, including the information in your OM&M plan.

(5) 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.

(6) A description of corrective action taken in response to a deviation.

(7) 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.

(8) 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.

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

(10) A brief description of the process units.

(11) A brief description of the CMS.

(12) The date of the latest CMS certification or audit.

(13) A description of any changes in CMS, processes, or control equipment since the last reporting period.

(f) If you have obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71, you 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 according to Table 6 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), then submitting the compliance report will satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submitting a compliance report will not otherwise affect any obligation you may have to report deviations from permit requirements to the permit authority.

§ 63.8640 What records must I keep?

(a) You must keep the records listed in paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status 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 as required in § 63.10(b)(2)(viii).

(b) You must keep the records required in Table 5 to this subpart to show continuous compliance with each emission limitation that applies to you.

(c) You must also maintain the records listed in paragraphs (c)(1) through (6) of this section.

(1) For each bag leak detection system, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken.

(2) For each deviation of an operating limit parameter value, the date, time, and duration of the deviation, a brief explanation of the cause of the deviation and the corrective action taken, and whether the deviation occurred during a period of startup, shutdown, or malfunction.

(3) For each affected source, records of production rates on a fired-product weight basis.

(4) Records for any approved alternative monitoring or test procedures.

(5) Records of maintenance and inspections performed on the APCD.

(6) Current copies of your SSMP and OM&M plan, including any revisions, with records documenting conformance.

§ 63.8645 In what form and how long must I keep my records?

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

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

(c) You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You may keep the records offsite for the remaining 3 years.

Other Requirements and Information

§ 63.8655 What parts of the General Provisions apply to me?

Table 7 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.8660 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the 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, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

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

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

(1) Approval of alternatives to the applicability requirements in §§ 63.8535 and 63.8540, the compliance date requirements in § 63.8545, and the non-opacity emission limitations in § 63.8555.

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

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

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

§ 63.8665 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:

Air pollution control device (APCD) means any equipment that reduces the quantity of a pollutant that is emitted to the air.

Bag leak detection system means an instrument that is capable of monitoring PM loadings in the exhaust of a fabric filter in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light-scattering, light-transmittance, or other effects to monitor relative PM loadings.

Clay ceramics manufacturing facility means a plant site that manufactures pressed floor tile, pressed wall tile, other pressed tile, or sanitaryware (e.g., sinks and toilets). Clay ceramics manufacturing facilities typically process clay, shale, and various

additives, form the processed materials into tile or sanitaryware shapes, and dry and fire the ceramic products. Glazes are applied to many tile and sanitaryware products.

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

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

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

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

Dry lime injection fabric filter (DIFF) means an air pollution control device that includes continuous injection of hydrated lime or other sorbent into a duct or reaction chamber followed by a fabric filter.

Dry lime scrubber/fabric filter (DLS/FF) means an air pollution control device that includes continuous injection of humidified hydrated lime or other sorbent into a reaction chamber followed by a fabric filter. These systems typically include recirculation of some of the sorbent.

Emission limitation means any emission limit or operating limit.

Fabric filter means an air pollution control device used to capture PM by filtering a gas stream through filter media; also known as a baghouse.

Particulate matter (PM) means, for purposes of this subpart, emissions of PM that serve as a measure of total particulate emissions, as measured by Method 5 (40 CFR part 60, appendix A), and as a surrogate for metal HAP contained in the particulates including, but not limited to, antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium.

Plant site means all contiguous or adjoining property that is under common control, including properties that are separated only by a road or other public right-of-way. Common control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination thereof.

Research and development kiln means any kiln whose purpose is to conduct research and development for new processes and products and is not engaged in the manufacture of products for commercial sale.

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

Roller kiln means any continuous kiln that uses rollers to convey individual ceramic pieces through the kiln, rather than using kiln cars such as those used in tunnel kilns.

Tunnel kiln means any continuous kiln (that is not a roller kiln) that is used to fire clay ceramics.

Wet scrubber (WS) means an air pollution control device that uses water, which may include caustic additives or other chemicals, as the sorbent. Wet scrubbers may use any of various design mechanisms to increase the contact between exhaust gases and the sorbent.

As stated in § 63.8555, you must meet each emission limit in the following table that applies to you:

Tables to Subpart KKKKK of Part 63

TABLE 1 TO SUBPART KKKKK OF PART 63.—EMISSION LIMITS

For each . . .	You must meet the following emission limits . . .	Or you must comply with the following . . .
1. New or reconstructed tunnel or roller kiln.	a. HF emissions must not exceed 0.014 kilograms per megagram (kg/Mg) (0.027 pounds per ton (lb/ton)) of fired product.	Reduce uncontrolled HF emissions by at least 95 percent.
	b. HCl emissions must not exceed 0.019 kg/Mg (0.037 lb/ton) of fired product.	Reduce uncontrolled HCl emissions by at least 90 percent.
	c. PM emissions must not exceed 0.06 kg/Mg (0.12 lb/ton) of fired product.	Not applicable.

As stated in § 63.8555, you must meet each operating limit in the following table that applies to you:

TABLE 2 TO SUBPART KKKKK OF PART 63.—OPERATING LIMITS

For each . . .	You must . . .
1. Kiln equipped with a dry lime injection fabric filter (DIFF) or dry lime scrubber/fabric filter (DLS/FF).	a. Initiate corrective action within 1 hour of a bag leak detection system alarm and complete corrective actions in accordance with your OM&M plan; operate and maintain the fabric filter such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period; and b. Maintain the average fabric filter inlet temperature for each 3-hour block period at or below the average temperature, plus 14°C (25°F), established during the performance test; and c. Maintain free-flowing lime in the feed hopper or silo and to the APCD at all times for continuous injection systems; maintain the feeder setting at or above the level established during the performance test for continuous injection systems.
2. Kiln equipped with a DLS/FF	Maintain the average water injection rate for each 3-hour block period at or above the level established during the performance test.
3. Kiln equipped with a wet scrubber (WS)	a. Maintain the average scrubber pressure drop for each 3-hour block period at or above the average pressure drop established during the performance test; and b. Maintain the average scrubber liquid pH for each 3-hour block period at or above the average scrubber liquid pH established during the performance test; and c. Maintain the average scrubber liquid flow rate for each 3-hour block period at or above the average scrubber liquid flow rate established during the performance test; and

TABLE 2 TO SUBPART KKKKK OF PART 63.—OPERATING LIMITS—Continued

For each . . .	You must . . .
	d. If chemicals are added to the scrubber water, maintain the average scrubber chemical feed rate for each 3-hour block period at or above the average scrubber chemical feed rate established during the performance test.

As stated in § 63.8595, you must conduct each performance test in the following table that applies to you:

TABLE 3.—TO SUBPART KKKKK OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS

For each . . .	You must . . .	Using . . .	According to the following requirements . . .
1. Kiln	a. Select locations of sampling ports and the number of traverse points.	Method 1 or 1A of 40 CFR part 60, appendix A.	Sampling sites must be located at the outlet of the APCD and prior to any releases to the atmosphere for all affected sources. If you choose to meet the percent emission reduction requirements for HF or HCl, a sampling site must also be located at the APCD inlet.
	b. Determine velocities and volumetric flow rate.	Method 2 of 40 CFR part 60, appendix A.	You may use Method 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A, as appropriate, as an alternative to using Method 2 of 40 CFR part 60, appendix A.
	c. Conduct gas molecular weight analysis.	Method 3 of 40 CFR part 60, appendix A.	You may use Method 3A or 3B of 40 CFR part 60, appendix A, as appropriate, as an alternative to using Method 3 of 40 CFR part 60, appendix A.
	d. Measure moisture content of the stack gas.	Method 4 of 40 CFR part 60, appendix A.	
	e. Measure HF and HCl emissions.	Method 26A of 40 CFR part 60, appendix A.	Conduct the test while operating at the maximum production level. You may use Method 26 of 40 CFR part 60, appendix A, as an alternative to using Method 26A of 40 CFR part 60, appendix A, when no acid PM (e.g., HF or HCl dissolved in water droplets emitted by sources controlled by a wet scrubber) is present.
	f. Measure PM emissions	Method 5 of 40 CFR part 60, appendix A.	Conduct the test while operating at the maximum production level.
2. Kiln that is complying with production-based emission limits.	Determine the production rate during each test run in order to determine compliance with production-based emission limits.	Production data collected during the performance tests (e.g., the number of ceramic pieces and weight per piece in the kiln during a test run divided by the amount of time to fire a piece).	You must measure and record the production rate, on a fired-product weight basis, of the affected kiln for each of the three test runs.
3. Kiln equipped with a DIFF or DLS/FF.	a. Establish the operating limit for the average fabric filter inlet temperature.	Data from the temperature measurement device during the performance test.	You must continuously measure the temperature at the inlet to the fabric filter, determine and record the block average temperatures for the three test runs, and determine and record the 3-hour block average of the recorded temperature measurements for the three test runs.
	b. Establish the operating limit for the lime feeder setting.	Data from the lime feeder during the performance test.	For continuous lime injection systems, you must ensure that lime in the feed hopper or silo and to the APCD is free-flowing at all times during the performance test and record the feeder setting for the three test runs. If the feed rate setting varies during the three test runs, determine and record the average feed rate from the three test runs.
4. Kiln equipped with a DLS/FF.	Establish the operating limit for the average water injection rate.	Data from the water injection rate measurement device during the performance test.	You must continuously measure the water injection rate. determine and the record the block average water injection rate values for the three test runs, and determine and record the 3-hour block average of the recorded water injection rate measurements for the three test runs.

TABLE 3.—TO SUBPART KKKKK OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS—Continued

For each . . .	You must . . .	Using . . .	According to the following requirements . . .
5. Kiln equipped with a WS.	a. Establish the operating limit for the average scrubber pressure drop.	Data from the pressure drop measurement device during the performance test.	You must continuously measure the scrubber pressure drop determine and record the block average pressure drop values for the three test runs, and determine and record the 3-hour block average of the recorded pressure drop measurements for the three test runs.
	b. Establish the operating limit for the average scrubber liquid pH.	Data from the pH measurement device during the performance test.	You must continuously measure the scrubber liquid pH, determine and record the block average pH values for the three test runs, and determine and record the 3-hour block average of the recorded pH measurements for the three test runs.
	c. Establish the operating limit for the average scrubber liquid flow rate.	Data from the flow rate measurement device during the performance test.	You must continuously measure the scrubber liquid flow rate, determine and record the block average flow rate values for the three test runs, and determine and record the 3-hour block average of the recorded flow rate measurements for the three test runs.
6. Kiln equipped with a WS that includes chemical addition to the water.	Establish the operating limit for the average scrubber chemical feed rate.	Data from the chemical feed rate measurement device during the performance test.	You must continuously measure the scrubber chemical feed rate, determine and record the block average chemical feed rate values for the three test runs, and determine and record the 3-hour block average of the recorded chemical feed rate measurements for the three test runs.

As stated in § 63.8605, you must demonstrate initial compliance with each emission limitation that applies to you according to the following table:

TABLE 4 TO SUBPART KKKKK OF PART 63.—INITIAL COMPLIANCE WITH EMISSION LIMITATIONS

For each . . .	For the following emission limitation . . .	You have demonstrated initial compliance if . . .
1. New or reconstructed tunnel or roller kiln.	a. HF emissions must not exceed 0.014 kg/Mg (0.027 lb/ton) of fired product; or uncontrolled HF emissions must be reduced by at least 95 percent; and	i. The HF emissions measured using Method 26A of 40 CFR part 60, appendix A, over the period of the initial performance test, according to the calculations in § 63.8595(g)(1), do not exceed 0.014 kg/Mg (0.027 lb/ton); or uncontrolled HF emissions measured using Method 26A of 40 CFR part 60, appendix A, over the period of the initial performance test are reduced by at least 95 percent, according to the calculations in § 63.8595(g)(2); and ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the 3-hour performance test during which HF emissions did not exceed 0.014 kg/Mg (0.027 lb/ton) or uncontrolled HF emissions were reduced by at least 95 percent.
	b. HCl emissions must not exceed 0.019 kg/Mg (0.037 lb/ton) of fired product; or uncontrolled HCl emissions must be reduced by at least 90 percent; and	i. The HCl emissions measured using Method 26A of 40 CFR part 60, appendix A, over the period of the initial performance test, according to the calculations in § 63.8595(g)(1), do not exceed 0.019 kg/Mg (0.037 lb/ton); or uncontrolled HCl emissions measured using Method 26A of 40 CFR part 60, appendix A, over the period of the initial performance test are reduced by at least 90 percent, according to the calculations in § 63.8595(g)(2); and ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the 3-hour performance test during which HCl emissions did not exceed 0.019 kg/Mg (0.037 lb/ton) or uncontrolled HCl emissions were reduced by at least 90 percent.
	c. PM emissions must not exceed 0.06 kg/Mg (0.12 lb/ton) of fired product..	i. The PM emissions measured using Method 5 of 40 CFR part 60, appendix A, over the period of the initial performance test, according to the calculations in § 63.8595(g)(1), do not exceed 0.06 kg/Mg (0.12 lb/ton); and ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the 3-hour performance test during which PM emissions did not exceed 0.06 kg/Mg (0.12 lb/ton).

As stated in § 63.8620, you must demonstrate continuous compliance with each emission limit and operating limit that applies to you according to the following table:

TABLE 5 TO SUBPART KKKKK OF PART 63.—CONTINUOUS COMPLIANCE WITH EMISSION LIMITS AND OPERATING LIMITS

For each . . .	For the following emission limits and operating limits . . .	You must demonstrate continuous compliance by . . .
1. Kiln equipped with a DIFF or DLS/FF.	a. Each emission limit in Table 1 to this subpart and each operating limit in Item 1 of Table 2 to this subpart for kilns equipped with DIFF or DLS/FF.	i. Initiating corrective action within 1 hour of a bag leak detection system alarm and completing corrective actions in accordance with your OM&M plan; operating and maintaining the fabric filter such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period; in calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted; if corrective action is required, each alarm is counted as a minimum of 1 hour; if you take longer than 1 hour to initiate corrective action, the alarm time is counted as the actual amount of time take by you to initiate corrective action; and ii. Collecting the fabric filter inlet temperature data according to §63.8600(a); reducing the fabric filter inlet temperature data to 3-hour block averages according to §63.8600(a); maintaining the average fabric filter inlet temperature for each 3-hour block period at or below the average temperature, plus 14°C (25°F), established during the performance test; and iii. Verifying that lime is free-flowing via a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system, or other system; recording all monitor or sensor output, and if lime is found not to be free flowing, promptly initiating and completing corrective actions in accordance with your OM&M plan; recording the feeder setting once each shift of operation to verify that the feeder setting is being maintained at or above the level established during the performance test.
2. Kiln equipped with a DLS/FF	Each emission limit in Table 1 to this subpart and each operating limit in Item 2 of Table 2 to this subpart for kilns equipped with DLS/FF.	Collecting the water injection rate data according to §63.8600(a); reducing the water injection rate data to 3-hour block averages according to §63.8600(a); maintaining the average water injection rate for each 3-hour block period at or above the average water injection rate established during the performance test.
3. Kiln equipped with a WS	a. Each emission limit in Table 1 to this subpart and each operating limit in Item 3 of Table 2 to this subpart for kilns equipped with WS.	i. Collecting the scrubber pressure drop data according to §63.8600(a); reducing the scrubber pressure drop data to 3-hour block averages according to §63.8600(a); maintaining the average scrubber pressure drop for each 3-hour block period at or above the average pressure drop established during the performance test; and ii. Collecting the scrubber liquid pH data according to §63.8600(a); reducing the scrubber liquid pH data to 3-hour block averages according to §63.8600(a); maintaining the average scrubber liquid pH for each 3-hour block period at or above the average scrubber liquid pH established during the performance test; and iii. Collecting the scrubber liquid flow rate data according to §63.8600(a); reducing the scrubber liquid flow rate data to 3-hour block averages according to §63.8600(a); maintaining the average scrubber liquid flow rate for each 3-hour block period at or above the average scrubber liquid flow rate established during the performance test; and iv. If chemicals are added to the scrubber water, collecting the scrubber chemical feed rate data according to §63.8600(a); reducing the scrubber chemical feed rate data to 3-hour block averages according to §63.8600(a); maintaining the average scrubber chemical feed rate.

As stated in §63.8635, you must submit each report that applies to you according to the following table:

TABLE 6 TO SUBPART KKKKK OF PART 63.—REQUIREMENTS FOR REPORTS

You must submit . . .	The report must contain . . .	You must submit the report . . .
1. A compliance report	a. If there are no deviations from any emission limitations (emission limit, operating limit) that apply to you, a statement that there were no deviations from the emission limitations during the reporting period. If there were no periods during which the CMS was out-of-control as specified in your OM&M plan, a statement that there were no periods during which the CMS was out-of-control during the reporting period.	Semiannually according to the requirements in §63.8635(b).

TABLE 6 TO SUBPART KKKKK OF PART 63.—REQUIREMENTS FOR REPORTS—Continued

You must submit . . .	The report must contain . . .	You must submit the report . . .
	b. If you have a deviation from any emission limitation (emission limit, operating limit) during the reporting period, the report must contain the information in § 63.8635(d) or (e) If there were periods during which the CMS was out-of-control, as specified in your OM&M plan, the report must contain the information in § 63.8635(e).	Semiannually according to the requirements in § 63.8635(b).
	c. If you had a startup, shutdown or malfunction during the reporting period and you took actions the consistent with your SSMP, compliance report must include the information in § 63.10(d)(5)(i).	Semiannually according to the requirements in § 63.8635(b).
2. An immediate startup, shutdown, and malfunction report if you took actions during a startup, shutdown, or malfunction during the reporting period that are not consistent with your SSMP.	a. Actions taken for the event according to the requirements in § 63.10(d)(5)(ii).	By fax or telephone within 2 working days after starting actions inconsistent with the plan.
	b. The information in § 63.10(d)(5)(ii)	By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority.

As stated in § 63.8655, you must comply with the General Provisions in §§ 63.1–63.15 that apply to you according to the following table:

TABLE 7 TO SUBPART KKKKK OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART KKKKK

Citation	Subject	Brief description	Applies to subpart KKKKK
§ 63.1	Applicability		Yes.
§ 63.2	Definitions		Yes.
§ 63.3	Units and Abbreviations		Yes.
§ 63.4	Prohibited Activities	Compliance date; circumvention, severability.	Yes.
§ 63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes.
§ 63.6(a)	Applicability	General Provisions (GP) apply unless compliance extension; GP apply to area sources that become major.	Yes.
§ 63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed sources.	Standards apply at effective date; 3 years after effective date; Upon startup; 10 years after construction or reconstruction commences for section 112(f).	Yes.
§ 63.6(b)(5)	Notification		Yes.
§ 63.6(b)(6)	[Reserved].		
§ 63.6(b)(7)	Compliance Dates for New Reconstructed Area Sources That Become Major.	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were area sources.	Yes.
§ 63.6(c)(1)–(2)	Compliance Dates for Existing Sources	Comply according to date in subpart, which must be no later than 3 years after effective date; for section 112(f) standards, comply within 90 days of effective date unless compliance extension.	Yes.
§ 63.6(c)(3)–(4)	[Reserved].		
§ 63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major.	Area sources that become major must comply with major source standards by date indicated in subpart or by equivalent time period (for example, 3 years).	Yes.
§ 63.6(d)	[Reserved].		
§ 63.6(e)(1)–(2)	Operation & Maintenance	Operate to minimize emissions at all times; correct malfunctions as soon as practicable; requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met.	Yes.
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan (SSMP).		Yes.
§ 63.6(f)(1)	Compliance Except During SSM	You must comply with emission standards at all times except during SSM.	Yes.

TABLE 7 TO SUBPART KKKKK OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART KKKKK—Continued

Citation	Subject	Brief description	Applies to subpart KKKKK
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection.	Yes.
§ 63.6(g)	Alternative Standard	Procedures for getting an alternative standard.	Yes.
§ 63.6(h)	Opacity/Visible Emission (VE) Standards		No, not applicable.
§ 63.6(i)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension.	Yes.
§ 63.6(j)	Presidential Compliance Exemption	President may exempt source category	Yes.
§ 63.7(a)(1)–(2)	Performance Test Dates	Dates for conducting initial performance testing and other compliance demonstrations; must conduct 180 days after first subject to rule.	Yes.
§ 63.7(a)(3)	§ 114 Authority	Administrator may require a performance test under CAA § 114 at any time.	Yes.
§ 63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test.	Yes.
§ 63.7(b)(2)	Notification of Rescheduling	Must notify Administrator 5 days before scheduled date of rescheduled date.	Yes.
§ 63.7(c)	Quality Assurance (QA)/ Test Plan	Requirements; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing.	Yes.
§ 63.7(d)	Testing Facilities		Yes.
§ 63.7(e)(1)	Conditions for Conducting Performance Tests.	Performance tests must be conducted under representative conditions.	No, § 63.8595 specifies requirements.
		Cannot conduct performance tests during SSM; not a violation to exceed standard during SSM.	Yes.
§ 63.7(e)(2)–(3)	Conditions for Conducting Performance Tests.	Must conduct according to subpart and EPA test methods unless Administrator approves alternative; must have at least three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used.	Yes.
§ 63.7(f)	Alternative Test Method		Yes.
§ 63.7(g)	Performance Test Data Analysis		Yes.
§ 63.7(h)	Waiver of Test		Yes.
§ 63.8(a)(1)	Applicability of Monitoring Requirements		Yes.
§ 63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of 40 CFR part 60 apply.	Yes.
§ 63.8(a)(3)	[Reserved].		
§ 63.8(a)(4)	Monitoring with Flares		No, not applicable.
§ 63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative.	Yes.
§ 63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring Systems.	Specific requirements for installing and reporting on monitoring systems.	Yes.
§ 63.8(c)(1)	Monitoring System Operation and Maintenance.	Maintenance consistent with good air pollution control practices.	Yes.
§ 63.8(c)(1)(i)	Routine and Predictable SSM	Reporting requirements for SSM when action is described in SSMP.	Yes.
§ 63.8(c)(1)(ii)	SSM not in SSMP	Reporting requirements for SSM when action is not described in SSMP.	Yes.
§ 63.8(c)(1)(iii)	Compliance with Operation and Maintenance Requirements.	How Administrator determines if source complying with operation and maintenance requirements.	Yes.
§ 63.8(c)(2)–(3)	Monitoring System Installation	Must install to get representative emission and parameter measurements.	Yes.
§ 63.8(c)(4)	Continuous Monitoring System (CMS) Requirements.		No, § 63.8615 specifies requirements.
§ 63.8(c)(5)	Continuous Opacity Monitoring System (COMS) Minimum Procedures.		No, not applicable.
§ 63.8(c)(6)	CMS Requirements		No, § 63.8575 specifies requirements.
§ 63.8(c)(7)–(8)	CMS Requirements		No, § 63.8575 specifies requirements.
§ 63.8(d)	CMS Quality Control		No, § 63.8575 specifies requirements.

TABLE 7 TO SUBPART KKKKK OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART KKKKK—Continued

Citation	Subject	Brief description	Applies to subpart KKKKK
§ 63.8(e)	CMS Performance Evaluation		No, § 63.8575 specifies requirements.
§ 63.8(f)(1)–(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring.	Yes.
§ 63.8(f)(6)	Alternative to Relative Accuracy Test		No, not applicable.
§ 63.8(g)	Data Reduction		No, not applicable.
§ 63.9(a)	Notification Requirements		Yes.
§ 63.9(b)	Initial Notifications		Yes.
§ 63.9(c)	Request for Compliance Extension		Yes.
§ 63.9(d)	Notification of Special Compliance Requirements for New Source.		Yes.
§ 63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes.
§ 63.9(f)	Notification of VE/Opacity Test		No, not applicable.
§ 63.9(g)(1)	Additional Notifications When Using CMS		Yes.
§ 63.9(g)(2)–(3)	Additional Notifications When Using CMS		No, not applicable.
§ 63.9(h)	Notification of Compliance Status		Yes.
§ 63.9(i)	Adjustment of Submittal Deadlines		Yes.
§ 63.9(j)	Change in Previous Information		Yes.
§ 63.10(a)	Recordkeeping/Reporting		Yes.
§ 63.10(b)(1)	General Recordkeeping Requirements		Yes.
§ 63.10(b)(2)(i)–(v)	Records Related to Startup, Shutdown, and Malfunction.		Yes.
§ 63.10(b)(2)(vi)–(xii) and (xiv).	CMS Records		Yes.
§ 63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test.	No, not applicable.
§ 63.10(b)(3)	Records	Applicability Determinations	Yes.
§ 63.10(c) (1)–(15)	Records		No, §§ 63.8575 and 63.8640 specify requirements.
§ 63.10(d)(1) and (2)	General Reporting Requirements	Requirements for reporting	Yes.
§ 63.10(d)(3)	Reporting Opacity or VE Observations		No, not applicable.
§ 63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension.	Yes.
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	Contents and submission	Yes.
§ 63.10(e)(1)–(3)	Additional CMS Reports		No, §§ 63.8575 and 63.8635 specify requirements.
§ 63.10(e)(4)	Reporting COMS data		No, not applicable.
§ 63.10(f)	Waiver for Recordkeeping/Reporting		Yes.
§ 63.11	Flares		No, not applicable.
§ 63.12	Delegation		Yes.
§ 63.13	Addresses		Yes.
§ 63.14	Incorporation by Reference		Yes.
§ 63.15	Availability of Information		Yes.

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