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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; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR–2002–0054 and OAR–2002–0055, FRL–7459–9]

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: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) for new and existing sources at brick and structural clay products (BSCP) manufacturing facilities and NESHAP for new and existing sources at clay ceramics manufacturing facilities. This action will implement section 112(d) of the Clean Air Act (CAA) by requiring major sources to meet hazardous air pollutant (HAP) emission standards reflecting the application of the maximum achievable control technology (MACT). The two subparts will protect air quality and promote the public health by reducing emissions of several of the HAP listed in section 112(b)(1) of the CAA. The rules will reduce HAP emissions from existing sources by 2,300 tons per year nationwide, with hydrogen fluoride (HF) and hydrogen chloride (HCl) accounting for 2,290 tons per year (99.6 percent) of the total HAP emissions reductions from existing sources. The associated metals (antimony, arsenic, beryllium, cadmium, chromium, cobalt, mercury, manganese, nickel, lead, and selenium) reductions from existing sources account for approximately 6 tons per year nationwide (0.4 percent). 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 known human carcinogens, four as probable human carcinogens, and one as a possible human carcinogen. We estimate that the two subparts will reduce nationwide emissions of HAP from these facilities by approximately 2,100 megagrams per year (Mg/yr)(2,300 tons per year (tpy)), a reduction of approximately 35 percent from the current level of emissions.

EFFECTIVE DATE: The final rule is effective May 16, 2003.

ADDRESSES: Docket No. OAR–2002–0054 contains supporting documentation used in developing the final BSCP rule. Docket No. OAR–2002–0055 contains supporting documentation used in developing the final clay ceramics rule. The dockets are located at the Air and Radiation Docket and Information Center in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Avenue, NW., Washington, DC 20460, telephone (202) 566–1744. The dockets are available for public inspection from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding Federal holidays.

FOR FURTHER INFORMATION CONTACT: For further information concerning applicability and rule determinations, contact the appropriate State or local agency representative. If no State or local representative is available, contact the EPA Regional Office staff listed in 40 CFR 63.13. For information concerning the analyses performed in developing the final 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*.

SUPPLEMENTARY INFORMATION: *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 today's final BSCP rule and § 63.8535 of today's final 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**.

Electronic Docket (E-Docket). The EPA has established official public dockets for this action under Docket ID No. OAR–2002–0054 for the final BSCP rule and Docket ID No. OAR–2002–0055 for the final clay ceramics rule. The official public dockets are the collection of materials that is available for public viewing at the EPA Docket Center (Air Docket), EPA West, Room B102, 1301 Constitution Avenue, NW., Washington, DC 20460. The Docket Center is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742. A reasonable fee may be charged for copying docket materials.

Electronic Access. Electronic versions of the public dockets are available through EPA's electronic public docket

and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the indexes of the contents of the official public dockets, and to access those documents in the public dockets that are available electronically. Once in the system, select ''search'' and key in the appropriate docket identification number. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified in this document.

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

Judicial Review. Under section 307(b)(1) of the CAA, judicial review of the final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by July 15, 2003. Under section 307(d)(7)(B) of the CAA, only an objection to the final rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the CAA, the requirements established by the final rule may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce the requirements.

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I. Background

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

Section 112 of the CAA requires us to list categories and subcategories of major and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. Clay products manufacturing was listed as a category of major sources on the initial source category list published in the **Federal Register** on July 16, 1992 (57 FR 31576). In the July 22, 2002 **Federal Register** notice (67 FR 47894) that proposed NESHAP for BSCP manufacturing and clay ceramics manufacturing, the clay products manufacturing source category was replaced by the BSCP manufacturing source category and the clay ceramics manufacturing source category. Today's action contains final rules for the two source categories. Major sources of HAP are those stationary sources or groups of stationary sources that are located within a contiguous area and under common control that emit or have the potential to emit considering controls, in the aggregate, 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 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 standards are set at a level that assures that all major sources achieve the level of control at least as stringent as that already achieved by the better-controlled and lower-emitting sources in each source category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory for which the Administrator has emissions information (or the best-performing 5 sources for which the Administrator has or could reasonably obtain emissions information for categories or subcategories with fewer than 30 sources).

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

C. How Were the Final Rules Developed?

We proposed standards for BSCP manufacturing and clay ceramics manufacturing on July 22, 2002 (67 FR 47894). The preamble for the proposed standards described the rationale for the proposed standards. Public comments were solicited at the time of proposal. The public comment period lasted from July 22, 2002 to September 20, 2002. Industry representatives, regulatory agencies, environmental groups, and the general public were given the opportunity to comment on the proposed rules and to provide additional information during the public comment period. We also offered at proposal the opportunity for oral presentation of data, views, or arguments concerning the proposed rules. A public hearing on the proposed BSCP rule was held on August 21, 2002, during which 21 presentations were made. Following the public hearing, we met with representatives of industry and environmental groups on several occasions.

We received a total of 80 public comment letters on the proposed BSCP rule and 9 public comments letters on the proposed clay ceramics rule. Comments were submitted by industry trade associations, BSCP and clay ceramics manufacturing companies, State regulatory agencies and their representatives, and environmental groups. Today's final rules reflect our consideration of all of the comments received. Major public comments on the proposed rules, along with our responses to those comments, are summarized in this preamble.

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 small amounts of 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, or if any adverse effects 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. The majority of the emissions reductions from this rule are HF (1900 tons per year nationwide) and HCl (390 tons per year nationwide), while the rule will only reduce emissions of the HAP metals listed below by a small amount (approximately 6 tons nationwide per year).

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. Effects of oral exposure to antimony are not well-described, but a single study has reported decreased longevity and changes in serum glucose and cholesterol in rats. 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. Oral exposure to beryllium was found to cause stomach lesions in dogs, but effects on humans are not well-described. We have classified beryllium as a Group B1, probable human carcinogen, when inhaled; data are inadequate to determine whether beryllium is carcinogenic when ingested.

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 inhalation 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 when inhaled; data are inadequate to determine whether cadmium is carcinogenic when ingested.

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 by the inhalation exposure route. Oral exposure of humans to chromium VI has been reported to cause sores in the mouth, gastrointestinal effects, and elevated white blood cell counts. Animal studies of oral chromium VI exposure have reported testicular degeneration and fetal damage in mice and rats. Chromium IV is also a potent contact sensitizer, producing allergic dermatitis in previously-exposed humans. Data are inadequate to determine if chromium VI is carcinogenic by oral exposure.

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 oral intake of 50 to 200 micrograms per day (μg/d) recommended for an adult. Data on adverse effects of high oral exposures of chromium III are not available for humans, but a study with mice suggests possible damage to the male reproductive tract. 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 associated with cobalt inhalation in humans. Cobalt is an essential element in humans, as a constituent of vitamin B12, but excessive oral intake has been reported to damage the heart, and to cause gastrointestinal effects and contact dermatitis. 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 methylmercury). Each form exhibits different health effects. Brick, structural clay products, and clay ceramics manufacturing may release elemental or inorganic mercury, but not methylmercury. However, elemental and inorganic mercury are deposited on surface water, where they are converted to methylmercury, an important food contaminant.

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) inhalation exposure to elemental mercury in humans also affects the CNS, with effects such as increased excitability, irritability, excessive shyness, and tremors. Data on toxic effects of oral exposure to elemental mercury are sparse. 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, either oral or inhalation, 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.

Both acute and chronic oral exposure to methylmercury have been found to cause developmental damage to the central nervous system in fetuses and children, with effects including mental retardation, deafness, blindness, and cerebral palsy. Lower exposures may cause developmental delays and abnormal reflexes. The most important source of methylmercury exposure for most people is eating fish. Although fish is an important part of a balanced diet federal and state fish advisories recommend limiting intake of certain fish that contain elevated methylmercury levels.

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 inhalation 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 inhalation studies of soluble nickel compounds (*i.e.*, nickel carbonyl) have reported lung tumors. Dermal exposure to nickel may produce contact dermatitis. Adverse effects of oral nickel exposure are not well-described. We have classified nickel refinery dust and nickel subsulfide as Group A, human carcinogens, and nickel carbonyl as a Group B2, probable human carcinogen, by inhalation exposure.

12. Lead

Lead is a very toxic element, causing a variety of effects at low oral or inhaled 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 Responses to Major Comments and Changes to the Brick and Structural Clay Products Manufacturing Proposed NESHAP

In response to the public comments received on the proposed BSCP rule, we made several changes in developing today's final BSCP rule. The major comments and our responses and rule changes are summarized in the following sections. A more detailed summary can be found in the Response-to-Comments document, which is available from several sources (see **SUPPLEMENTARY INFORMATION** section).

A. Air Pollution Control Devices

The most significant change to the proposed BSCP rule concerns our conclusions regarding the effective application of air pollution control devices (APCD) to existing kilns. The EPA received numerous comments from industry representatives, kiln manufacturers, and air pollution control device vendors on issues related to the application and performance of APCD. The MACT floor in the proposed rule was based on the use of dry lime injection fabric filters (DIFF), dry lime scrubber/fabric filters (DLS/FF), or wet scrubbers (WS). Another technology commonly used to control emissions from brick kilns, dry limestone adsorbers (DLA), was not considered to be a MACT floor technology at the time of proposal because we had concerns with monitoring options and our data indicated that the DLA could not achieve HAP emissions reductions equivalent to the reductions achieved by DIFF, DLS/FF, or WS technologies. However, as discussed in the paragraphs below, many commenters reported disadvantages of the DIFF, DLS/FF, and WS technologies for BSCP kilns and provided information to address our concerns about DLA technology. Consequently, the final rule allows some sources to use the DLA technology.

Several commenters argued that DIFF, DLS/FF, and WS technologies are not proven or commercially available for BSCP kilns. Commenters pointed out that, with the exception of one facility, full-scale WS have never been used on

BSCP kilns, although some short-term pilot tests of WS have been conducted. The commenters pointed out that injection systems (such as DIFF and DLS/FF) and wet control devices need a certain airflow to operate properly, and different products may require different airflows, some of which could be outside of the range within which the APCD operates properly. In addition, commenters pointed out that during kiln slowdowns (which could be caused by a situation such as an economic slowdown), the APCD may not be able to operate at all because of reduced kiln airflow.

Several commenters expressed concerns about waste disposal. Commenters stated that DIFF and DLS/FF systems produce large amounts of solid waste that is difficult and expensive to dispose of. Commenters stated that WS would not be viable options for many BSCP plants because of wastewater treatment issues (*e.g.*, limited or no sewer access, wastewater treatment costs). Commenters added that recycling of WS wastewater back into the brick body is not an option because of problems created by the soluble salts in the water (*e.g.*, scumming and efflorescence) and because the volume of wastewater generated would exceed process water needs even if recycling were possible.

Commenters also raised concerns about retrofitting existing BSCP kilns with DIFF, DLS/FF, and WS technologies. Commenters pointed out that brick color, the primary factor in brick sales, is affected by kiln airflow. Thus, retrofitting with an APCD that changes the kiln airflow would change the recipes for the manufacture of brick in a tunnel kiln. Thus, years of experience in the colors produced by the unique firing characteristics of a kiln would be lost. Implications are serious if a facility cannot match its existing product line.

The commenters also charged that we did not account for other retrofitting problems associated with installing DIFF, DLS/FF, or WS on older kilns, and the costs associated with these problems. Commenters also described how attempts at retrofitting kilns with these APCD have resulted in significant amounts of kiln downtime and permanent reductions in kiln production capacities. As stated by the commenters, none of the retrofits have been entirely successful in terms of reducing emissions while not disrupting the production process, and several have had dramatic negative impacts on the production process. At one facility that retrofitted two kilns with DIFF, the capacities of the two kilns decreased from 13.5 cars per day to 12.2 cars per day because of changes in the kiln airflow that resulted from the retrofit. This resulted in a loss of revenue of about $1 million per year. Another retrofit DIFF (multi-stage injection system) installation at a different facility was reported to be extremely problematic, and the cost of the APCD, which was originally estimated at $1 million, is now over $2 million and the system is still not operating correctly more than 2 years later. The facility has experienced numerous problems with the basic design of the unit, including improperly designed dampers and reagent feeding systems. A facility representative stated that the problems are largely due to the fact that few systems have been developed for brick kiln operations; therefore, vendors are still learning (often on the industry's nickel) how to design these systems. In the facility's public comments, they stated that they plan to never build another hot baghouse (DIFF or DLS/FF) due to the massive operating problems associated with them. A retrofit DLS/FF system, the only one that has been attempted in the U.S. to date, also was problematic. The facility stated that they have experienced maintenance and material quality problems that have resulted in kiln downtime. The facility added that the problems stem from the fact that the system is a prototype without a substantial operational, troubleshooting and maintenance history, which has left the facility in the position of having to diagnose and solve the problems as the system operates. In addition, the company that installed this system is no longer quoting systems to the BSCP industry.

Numerous commenters recommended that EPA allow use of DLA. The commenters described the operating benefits of DLA, including ease of operation, low operating cost, little down time, and the ability to handle kiln fluctuations with changing throughputs. Most importantly, DLA do not impact kiln operation. The commenters pointed out that DLA do not require a minimum airflow like DIFF, DLS/FF, or WS technologies. One commenter pointed out that once a DLA is designed for maximum airflow, any fluctuations below this maximum only create more contact time between the kiln exhaust gases and the limestone, which would likely increase the effectiveness of the DLA and would not impact the operation of the kiln. The commenters pointed out that DLA have been used extensively in Europe for many years and also are the most prevalent APCD used in the BSCP industry in the United States. Many commenters stated that DLA should be allowed if they can meet the BSCP standards. The commenters indicated that plants should not have to request site-specific monitoring parameters for DLA because they are the most prevalent technology. In addition, some commenters discussed the high costs and limited additional HAP reduction associated with replacing existing DLA with a DIFF system.

Several commenters felt that EPA disregarded or ''bashed'' DLA and disagreed with EPA's conclusions regarding DLA in the preamble to the proposed rule. Specifically, the commenters disagreed that: DLA generate particulate matter (PM) emissions; long-term test data that demonstrate DLA performance over the life of the sorbent are not available; DLA limestone is not continuously replaced; and the performance of DLA decreases as the sorbent is re-used because the ability of the sorbent to adsorb HF and HCl decreases.

We disagree with commenters that the use of DIFF has not been proven in the brick industry. The DIFF and DLS/FF systems are a proven control technology for kilns with a given minimum airflow rate. We do, however, believe that retrofitting existing kilns with DIFF or DLS/FF systems is not feasible in many cases. We recognize that WS may not be practical or low-cost for most facilities, but believe they could be a legitimate option for some facilities (*e.g.*, facilities with sewer access). We acknowledge that retrofitting existing BSCP kilns with certain APCD (particularly those that affect kiln airflow) can alter time-honored recipes for brick color, thereby changing the product. We acknowledge that DLA are used extensively around the world to control emissions from brick kilns. In developing the description of DLA technology for the preamble to the proposed rule, we used the technical data available to us at the time. We had no intention of ''bashing'' DLA but simply reported the data at hand.

After consideration of the comments received regarding DIFF, DLS/FF, WS, and DLA technologies, we have come to new conclusions regarding the effective application of these devices. We now believe that DLA are the only currently available technology that can be used to retrofit existing kilns without potentially significant impacts on the production process, and we have revised today's final rule accordingly. In addition, we believe that, because of the retrofit concerns that we have identified, it is not technologically and economically feasible for an existing

small tunnel kiln that would otherwise meet the criteria for reconstruction in 40 CFR 63.2 and whose design capacity is increased such that it is equal to or greater than 9.07 Mg/hr (10 tph) of fired product (for the remainder of this preamble, these sources will be referred to as ''existing small kilns that are rebuilt such that they become large kilns'') to meet the relevant standards (*i.e.*, new source MACT) by retrofitting with a DIFF, DLS/FF, or WS. In addition, we believe that it is not technologically and economically feasible for an existing large DLA-controlled kiln that would otherwise meet the criteria for reconstruction in 40 CFR 63.2 (for the remainder of this preamble, these sources will be referred to as ''existing large DLA-controlled kilns that are rebuilt'') to meet the relevant (*i.e.*, new source MACT) standards by retrofitting with a DIFF, DLS/FF, or WS. Accordingly, we have added regulatory language in 40 CFR 63.8390(i) to provide that an existing small kiln that is rebuilt such that it becomes a large kiln and an existing large DLA-controlled tunnel kiln that is rebuilt do not meet the definition of reconstruction in 40 CFR 63.2 and are not subject to the same requirements as new and reconstructed large tunnel kilns. However, it is technologically and economically feasible for both types of kilns described in 40 CFR 63.8390(i) to retrofit with a DLA (or to continue operating an existing DLA) and we have revised today's final rule to require that such kilns meet emission limits that correspond to the level of control provided by a DLA. We continue to believe that DIFF, DLS/FF, and WS are appropriate technologies for new large tunnel kilns and for reconstructed large tunnel kilns that were equipped with DIFF, DLS/FF, or WS prior to reconstruction. However, DLA are the only APCD that have been demonstrated on small tunnel kilns (which have smaller airflows than large tunnel kilns), and, therefore, the requirements for new and reconstructed small tunnel kilns are based on the level of control that can be achieved by a DLA. We note that facilities have the flexibility to select any control device or technique that ensures that emissions from their brick kilns are in compliance with the emission limits set forth in the final rule. Each of the APCD described above have advantages and disadvantages to their use, and the selection of the APCD to meet the requirements of the final rule will be dependent on site-specific parameters.

B. Affected Source

1. Production-Rate Limit

The proposed rule subcategorized tunnel kilns based on a 9.07 Mg/hr (10 tph) design capacity. We requested comment on the appropriate design capacity-based subcategorization level in the preamble to the proposed rule. We received numerous comments regarding subcategorization of tunnel kilns. While some commenters agreed with the 9.07 Mg/hr (10 tph) distinction among tunnel kiln subcategories, several commenters thought that the 9.07 Mg/hr (10 tph) limit was arbitrarily assigned. The commenters charged that EPA did not use all available data in determining the appropriate size cutoff. Many commenters argued that the design capacity limit should be higher based on available data (*i.e.*, 10.1 Mg/hr (11.1 tph) or 12.1 Mg/hr (13.3 tph)). The commenters disagreed that the cutoff should be rounded down from 10.1 Mg/hr (11.1 tph) to 9.07 Mg/hr (10 tph).

Some commenters noted that a design capacity distinction gives a competitive advantage to facilities operating smaller kilns. One commenter disagreed that there was a technological basis for differentiating among tunnel kilns producing above or below 9.07 Mg/hr (10 tph). The commenter stated that EPA may not subcategorize tunnel kilns to reduce costs.

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. Section 112(d)(1) of the CAA states ''the Administrator may distinguish among classes, types, and sizes of sources within a category or subcategory'' in establishing emission standards. Thus, we have discretion in determining appropriate subcategories based on classes, types, and sizes of sources. We used this discretion in developing subcategories for the BSCP source category. We first subcategorized kilns based on type (*i.e.*, periodic kilns versus tunnel kilns). We then further subcategorized tunnel kilns based on kiln size. Our distinctions are based on technological differences in the equipment. For example, periodic kilns are smaller than tunnel kilns and operate in batch cycles, whereas tunnel kilns operate continuously. There are also differences in the effective application of air pollution controls. To our knowledge, HAP emissions from periodic kilns have not successfully been controlled. Similarly, we distinguished between tunnel kilns with design capacities above and below 9.07 Mg/hr (10 tph) at proposal in part because the APCD we believed to be the best performers (DIFF, DLS/FF, and WS) were not demonstrated on existing tunnel kilns with design capacities below roughly 9.07 Mg/hr (10 tph). For the reasons discussed below, we revisited the appropriate subcategorization level in response to comments on the proposal when developing today's final rule. While we continue to believe that 9.07 Mg/hr (10 tph) is the appropriate subcategorization level, our reasons for choosing that level have changed since proposal in light of new information that we received during the public comment period about DLA controls and the three proposed MACT controls (DIFF, DLS/FF, and WS).

As discussed earlier, numerous commenters pointed out serious concerns regarding retrofitting existing kilns with APCD such as DIFF, DLS/FF, and WS. Therefore, we now consider DLA to be the only currently available technology that can be used to retrofit existing kilns, including existing small kilns that are rebuilt such that they become large kilns and existing large DLA-controlled kilns that are rebuilt, without potentially significant impacts on the production process.

In response to comments suggesting that we include new data in our analyses, we updated our data base with information on new kilns, new APCD (except those controls that we consider to achieve the lowest achievable emission rate (LAER) as specified in section 112(d)(3)(A) of the CAA), changes in kiln capacities, and changes in facility ownership. We used the information submitted by commenters and made followup calls to States and individual facilities for additional clarification as necessary to update our data base.

We used our updated data base in reevaluating all aspects of the proposed standards. The smallest tunnel kiln with MACT floor controls (*i.e.*, with DLA controls reflecting the existing source MACT floor under today's final rule) in our updated database has a capacity of 8.3 Mg/hr (9.1 tph). Rounding up to the nearest integer, based on current application of APCD to BSCP tunnel kilns, we believe that 9.07 Mg/hr (10 tph) continues to be an appropriate subcategorization level. Commenters have stated that a smaller tunnel kiln (*e.g.*, 4.5 Mg/hr (5 tph) capacity) is dissimilar from a larger tunnel kiln (*e.g.*, 13.6 Mg/hr (15 tph) capacity), especially with regard to the airflow, which is a key operating parameter for APCD. Airflow is particularly important for

lime injection-type systems (DIFF and DLS/FF), because the injected lime is carried through the reaction chamber (or duct) by the kiln exhaust gas. For a given lime injection rate, if a minimum exhaust flow is not maintained, the sorbent can settle in the duct work and cause APCD malfunction. Furthermore, APCD malfunctions can affect the airflow within the kiln, and can destroy product that is in the kiln. We believe that DIFF and DLS/FF systems, if attempted on smaller kilns, would experience more difficulties with respect to airflow than systems on larger kilns because as the design airflow decreases, the acceptable operating range also would be expected to decrease. Any fluctuation in airflow would be expected to have a greater impact on APCD operation as the size of the system decreases. Given the technological concerns and the capacities of currently-controlled tunnel kilns, we maintain that a design capacity-based subcategorization level of 9.07 Mg/hr (10 tph) is appropriate for existing tunnel kilns.

We acknowledge the comments suggesting that 10.1 Mg/hr (11.1 tph) should be the size cutoff based on the smallest DIFF-controlled tunnel kiln. However, because we now consider that the performance of a DLA represents the MACT floor for existing sources (and DIFF, DLS/FF, and WS also can meet the emission limits), we considered the smallest non-LAER DLA-controlled kiln in setting the subcategorization level. We disagree that 12.1 Mg/hr (13.3 tph) would have been the proper level for proposal or for the final rule. We believe that consideration of technological differences and the effective application of APCD to kilns of different sizes is the appropriate method of selecting a subcategorization level. We maintain that 9.07 Mg/hr (10 tph) is appropriate.

We understand that, regardless of the particular subcategorization level selected, there will be facilities that operate kilns with throughputs slightly above the level and some that operate kilns at slightly below the level. Facilities operating kilns slightly above the subcategorization level have the option of accepting a federally enforceable permit limit to limit their throughput to below the level. Facilities operating just below the level must make careful decisions regarding expansion of their kilns. We acknowledge that facilities operating near the subcategorization level must make decisions regarding permit limits and expansions based on facility-specific considerations (*e.g.*, control costs, impact on revenue). However, as some commenters have pointed out, cost is not an appropriate criteria for us to use in establishing subcategories, because our discretion for establishing subcategories is limited, under the CAA, to distinguishing among classes, types, and sizes of sources.

2. R&D Kiln Definition

One commenter requested that we change the definition of research and development (R&D) kiln so that it is consistent with the definition of R&D in section 112(c)(7) of the CAA and most other NESHAP. Therefore, today's final rule includes a revised definition of research and development kiln that is consistent with section 112(c)(7) of the CAA and other NESHAP.

C. Existing Source MACT

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

In the preamble to the proposed BSCP rule, we requested comment on inclusion of synthetic area sources (also called synthetic minor sources) in the MACT floor determinations for existing tunnel kilns. For the remainder of this preamble, we will refer to these sources as synthetic minor sources. Synthetic minor sources are those facilities that emit fewer than 10 tons per year of any HAP and fewer than 25 tons per year of any combination of HAP because they use some emission control device (or devices), the operation of which is required by a Federally Enforceable State Operating Permit (FESOP). In the absence of such controls, these sources would be major.

Inclusion of synthetic minor sources in the MACT floor determination was an issue prior to proposal because whether or not synthetic minor sources were included would affect the level of control represented by the floor determinations for existing large tunnel kilns (*i.e.*, tunnel kilns with design capacities equal to or greater than 9.07 Mg/hr (10 tph)). Had synthetic minor sources been excluded, the MACT floor for existing tunnel kilns would have been ''no emissions reductions.'' With synthetic minor sources included (as we proposed), the MACT floor for existing tunnel kilns was based on a DIFF, DLS/FF or WS.

Industry representatives asserted, prior to proposal, that the BSCP MACT floor determination should not include synthetic minor sources. We rejected the idea of excluding synthetic minor sources from the MACT floor determination for several reasons discussed in the preamble to the proposed rule. (See 67 FR 47894, 47911–47912, July 22, 2002.) Nevertheless, because of the industry representatives' arguments, we requested comment from all interested parties on inclusion of synthetic minor sources in MACT floor determinations.

Following proposal, numerous industry representatives commented on the issue of whether to include synthetic minor sources in MACT floor determinations. The industry representatives commented that only major sources are included in the listed BSCP source category, and therefore, only major sources are to be used in the MACT floor determination. The commenters referenced section 112(a)(1) of the CAA, which defines major source as a source that ''emits or has the potential to emit *considering controls* 10 tons per year * * *.'' (emphasis added), and stated that by definition, synthetic minor sources are not major sources. The commenters noted that EPA did not include true area sources (or minor sources) in the MACT floor determination and stated that synthetic minor sources should be treated similarly for purposes of establishing MACT floors.

An environmental group also commented on the issue of including synthetic minor sources in MACT floor determinations. The commenter supported EPA's decision to include synthetic minor sources in the MACT floor for BSCP. The commenter stated that the CAA requires EPA to include synthetic minor sources in MACT floor determinations. The commenter stated that excluding consideration of the best-controlled sources (which became synthetic minor sources as a result of effective controls) would contradict the CAA section 112(d) MACT floor methodology established by Congress. The commenter argued that such exclusion would weaken emission standards required for existing sources, and increase the levels of air toxics released into the environment.

Section 112(d) of the CAA directs us to establish emission standards for each category or subcategory of major sources and minor sources of HAP listed for regulation pursuant to section 112(c) of the CAA. Each such standard must reflect a minimum level of control known as the MACT floor. (See CAA section 112(d).) However, section 112 of the CAA does not specifically address synthetic minor or synthetic area sources, which include those sources 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(s), pollution prevention techniques or other measures (collectively referred to as controls in this preamble) adopted

under Federal or State regulations. If not for the enforceable controls they have implemented, synthetic minor sources would be major sources under section 112 of the CAA.

We believe that the better interpretation of the CAA's plain language and legislative history requires that synthetic minor sources be included in MACT floor determinations. First, the plain language of the statute makes clear that our MACT floor determinations are to reflect the best sources in a category. For new sources in a category or subcategory, the MACT floor shall not be less stringent than the emission control that is achieved in practice by the *best-controlled* similar source, as determined by EPA. (See CAA section 112(d)(3), emphasis added.) For existing sources in a category or subcategory with 30 or more sources, the MACT floor may be less stringent than the floor for new sources in the same category or subcategory but shall not be less stringent than the average emission limitation achieved by the *best performing* 12 percent of the existing sources (for which the Administrator has emissions information). (See CAA section 112(d)(3)(A), emphasis added.[1]) Thus, section 112(d)(3) of the CAA requires that MACT floors reflect what the best-controlled new sources and the best-performing existing sources achieve in practice. These phrases contain no exemptions and are not limited by references to sources with or without controls. Therefore, they suggest that all of the best-controlled or best-performing sources should be considered in MACT floor determinations, regardless of whether or not such sources rely upon controls.

Furthermore, section 112(d)(3) of the CAA expressly excludes certain sources that meet LAER requirements from MACT floor determinations for existing sources. (See CAA section 112(d)(3)(A).) The fact that Congress expressly excluded such LAER sources but did not also exclude synthetic minor sources suggests that no exclusion was intended for synthetic minor sources. Indeed, nothing in the statute suggests that EPA should exclude a control technology from its consideration of the MACT floor because the technology is so effective that it reduces source emissions such that the source is no longer a major source of HAP. (See 67 FR 36,460 and 36,464, May 23, 2002, stating this rationale for including synthetic minor sources in the floor determination for the proposed NESHAP for municipal solid waste landfills.)

Some commenters argue that because the BSCP source category only includes major sources and synthetic minor sources are non-major by definition, synthetic minor sources (like true area sources) fall outside the regulated source category and should not be considered in MACT floor determinations. EPA agrees that the BSCP source category includes only major sources. (See 67 FR 47,894 and 47,898, July 22, 2002.) However, EPA disagrees that the CAA contemplates that synthetic minor sources must be treated like true area sources and excluded from MACT floor determinations. Section 112(a) of the CAA defines a major source as:

> any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants * * *.

(*See* CAA section 112(a)(1).) An area source is defined as any stationary source of hazardous air pollutants that is not a major source. (See CAA section 112(a)(1).) In the major source definition, the reference to a source's potential to emit considering controls allows the interpretation that a source's potential to emit before and after controls is relevant, such that synthetic minor sources may be considered within the meaning of this definition and included in MACT floor determinations for categories of major sources.[2] Some commenters appear to suggest that the reference to a source's potential to emit considering controls can only mean a source's potential to emit after controls have been implemented. While it is possible to read the phrase in this manner in isolation, this interpretation would have the effect of excluding the best-performing sources in a category from MACT floor determinations and therefore would be contrary to the statutory mandate that EPA set MACT floors based on the levels the best-controlled new sources and the best-performing existing sources achieve in practice. We believe the statutory reference to potential to emit considering controls should be read in a manner consistent with the other requirements of section 112(d) of the CAA to allow for the consideration of synthetic minor sources in MACT floor determinations for categories of major sources.

In addition, the legislative history suggests that synthetic minor sources should be included in MACT floor determinations. In a floor statement, Senator Durenberger stated that in implementing section 112(d)(3) of the CAA, ''the [Senate] managers intend the Administrator to take whatever steps are necessary to assure that [the Administrator] has collected data on *all of the better-performing sources within each category.* [The Administrator] must have a data-gathering program sufficient to assure that [EPA] does not miss *any sources that have superior levels of emission control.*'' (See Environment and Natural Resources Policy Division, Congressional Research Service, 103d Cong., S.Prt. 103–38 (prepared for the U.S. Senate Committee on Environment and Public Works), A Legislative History of the Clean Air Act Amendments of 1990 at 870, Nov. 1993, emphasis added.) This statement underscores that Congress intended for MACT floor determinations to reflect consideration of all of the sources in each category with the best emission controls. We believe it would be inconsistent with Congress's intent and the plain language of the CAA to exclude synthetic minor sources—those sources with superior controls which became synthetic minor sources by implementing such controls—from MACT floor determinations.

We believe that the inclusion of synthetic minor sources in MACT floor determinations is justified because of the reasons explained above. Even if the MACT floor determination had been ''no emissions reductions'' we believe that a departure from the MACT floor to a beyond-the-floor standard, based on DLA technology, is viable because the benefits associated with the emissions reductions will exceed the cost of installing and operating the technology.

2. MACT Floors for Existing Sources

Some commenters questioned how the MACT floor for existing sources was

[1] If a category or subcategory has fewer than 30 sources, the floor shall be ''the average emission limitation achieved by the *best performing* 5 sources (for which the Administrator has or could reasonably obtain emissions information) in the category or subcategory.'' (See CAA section 112(d)(3)(B), emphasis added.)

[2] We believe this approach is not inconsistent with our policy that existing sources that limit their potential to emit to below the major source threshold prior to the first compliance deadline under a MACT standard will not be subject to the standard, as one commenter suggests. (See Memorandum from John S. Seitz, Director, Office of Air Quality Planning and Standards, EPA, to EPA Regions, ''Potential to Emit for MACT Standards—Guidance on Timing Issues,'' May 16, 1995.) Including synthetic minor sources in MACT floor determinations ensures that MACT floors reflect the best-performing sources, as the CAA requires. At the same time, our policy recognizes that sources that already achieve or perform better than the MACT floors need not be subject to the MACT standards.

set. Some commenters thought that control devices installed for sulfur oxides (SO_x) control (rather than for HAP control) should not be considered in the MACT floor. Other commenters felt that costs should be a consideration.

One commenter charged that EPA has simply set MACT floors based on control technology type and that EPA did not identify the relevant best performers and set floors reflecting their average emission level. The commenter noted that factors other than control device type affect emissions and that EPA must consider all non-negligible factors in setting MACT floors and considering beyond-the-floor measures. The commenter stated that if EPA believes it is unworkable to consider all factors, then perhaps EPA should base standards on actual emissions data which reflects all the factors influencing a source's performance. The commenter also noted that EPA picked the worst performance of any source that used the chosen technology to set the floor for PM.

A detailed discussion of how we determined the MACT floor for existing large tunnel kilns (*i.e.,* tunnel kilns with design capacities equal to or greater than 9.07 Mg/hr (10 tph)) is provided below. Although the discussion in the example below focuses on existing large tunnel kilns that exhaust directly to the atmosphere or to an APCD, the same MACT floor methodology was used for existing large tunnel kilns that exhaust to sawdust dryers prior to exhausting to the atmosphere, existing small tunnel kilns that exhaust directly to the atmosphere or to an APCD, existing small sawdust-fired tunnel kilns that duct to sawdust dryers, and existing periodic kilns. Details of these MACT floor determinations were discussed in the preamble to the proposed rule. (See 67 FR 47909–47912, July 22, 2002.) Section 112(d)(3) is the section of the CAA that dictates how we must establish MACT floors. Section 112(d)(3) of the CAA states that:

> The maximum degree of reduction in emissions that is deemed achievable for new sources in a category or subcategory shall not be less stringent than the emission control that is achieved in practice by the best controlled similar source, as determined by the Administrator. Emission standards promulgated under this subsection for existing sources in a category or subcategory may be less stringent than standards for new sources in the same category or subcategory but shall not be less stringent, and may be more stringent than—
>
> (A) Rhe average emission limitation achieved by the best performing 12 percent of the existing sources (for which the Administrator has emissions information), excluding those sources that have, within 18 months before the emission standard is proposed or within 30 months before such standard is promulgated, whichever is later, first achieved a level of emission rate or emission reduction which complies, or would comply if the source is not subject to such standard, with the lowest achievable emission rate (as defined by section 171) applicable to the source category and prevailing at the time, in the category or subcategory for categories and subcategories with 30 or more sources * * *.

With the exception of the LAER provisions in section 112(d)(3)(A) of the CAA, the CAA requires us to base the MACT floor on the best-performing sources without consideration of why facilities decided to control emissions. Therefore, if an APCD is reducing HAP emissions (*e.g.*, HF, HCl, or HAP metals), it is irrelevant if sources installed APCD for SO_X or visible emissions control for purposes of conducting MACT floor determinations.

We determined the MACT floor control level for existing sources using the following general procedure:

(1) We reviewed available data on pollution prevention techniques (including substitution of raw materials and/or fuels) and the performance of add-on control devices to determine the techniques that were viable for and effective at reducing HAP emissions;

(2) For each subcategory, we ranked the kilns from the best performing to the worst performing based on the emission reduction technique used on the kilns;

(3) For each subcategory, we then identified the 94th percentile kiln and the emission reduction technique that represented the MACT floor technology; and

(4) For each subcategory, we then selected production-based or percent-reduction emission limits that correspond to the 94th percentile kiln and emission reduction technique, and we based our selections on the available data while considering variability in the performance of a given emission reduction technique.

To identify the best-performing emission reduction techniques, we reviewed available data on pollution prevention techniques (*i.e.,*, substitution of raw materials and/or fuels) and the performance of add-on control devices. We determined that substitution of raw materials and/or fuels is not an option because substitution of raw materials and/or fuels could affect the ability of a facility to duplicate its current product line. In addition, it is impractical for facilities to import, from a distance of more than a few miles, the large amounts of raw material that are required (most facilities are located in close proximity to their raw material source). With respect to use of low-HAP fuels, our available test data for the BSCP industry do not show identifiable differences in emissions based on kiln fuel type; that is, the contribution of raw materials to HAP emissions far outweighs the contribution of the fuels. In addition, fuel type can impact the color of a product, and any requirement that would require a kiln to change fuel type could cause the kiln to be unable to match an existing product line. While we agree that factors other than APCD type can affect emissions, we do not have the data to determine the specific degree of the effect of factors other than APCD on emissions, and we believe that, for the BSCP industry, factors other than APCD use are not viable MACT floor or beyond-the-floor control options. Our data show that add-on APCD have a large effect on emissions, and further show that the presence or absence of an APCD is likely the greatest factor in determining a BSCP kiln's actual performance. It follows that the subset of BSCP kilns that are the best performers are those with add-on APCD. Therefore, our analysis focused on the performance of add-on control devices.

Prior to proposal we concluded that the best-performing add-on control devices were DIFF, DLS/FF, and WS. Based on the comments received following proposal (as discussed elsewhere in this preamble) regarding retrofit concerns with these technologies, we now believe that DLA are the only currently available technology that can be used to retrofit existing large kilns without potentially significant impacts on the production process. Thus, DLA are the best-performing APCD for existing large tunnel kilns.

We ranked the kilns within each subcategory according to APCD use. Information on the number of kilns and the types of APCD was based primarily on responses to a survey of the industry and additional information gathered following the survey including public comments on the proposed rule. Equipment in use at major sources and synthetic minor sources was used in the equipment ranking. In accordance with section 112(d)(3)(A) of the CAA, equipment at kilns that achieved LAER less than 18 months before proposal was not included in the equipment ranking. When we ranked the large tunnel kilns, we treated kilns equipped with DLA as the best-controlled sources, although DIFF, DLS/FF, and WS also can achieve the level of performance of a DLA. We ranked the kilns by APCD rather than actual unit-specific emissions reductions because we do not have emissions test data for all kilns.

Section 112(d)(3) of 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 (for which the Administrator has emissions information) where there are 30 or more sources in the category or subcategory. Our interpretation of average emission limitation is that it is a measure of central tendency, such as the arithmetic mean or the median. If the median 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. We based our MACT floors for each BSCP subcategory on this interpretation. Nineteen percent (22 of 115) of the existing large tunnel kilns located at synthetic minor sources or major sources are controlled by a DLA (12), DIFF (4), DLS/FF (4), or WS (2). Because more than 6 percent of the large tunnel kilns reduce emissions by some technique, emissions reductions from these kilns are required under the CAA. We then considered which of these controls are proven to be applicable to existing tunnel kilns, and we ranked these kilns to determine the appropriate MACT emission limits. We consider the 12 DLA to be equivalent and believe that this type of control can be applied to any existing large tunnel kiln without causing potentially significant production problems. We consider the performance of all of the DLA to be equivalent because there currently are two types of DLA in the industry (supplied by two manufacturers), and we have test data for both designs that show HF removal efficiencies that are within 1 percent of one another. We excluded DIFF and DLS/FF from our ranking of controls for existing sources because of the reported problems caused by applying DIFF and DLS/FF to existing kilns. We excluded WS from our ranking of controls for existing sources because many facilities do not have proven wastewater disposal options. Therefore, we only considered DLA in our ranking, and accordingly, the 94th percentile source (the 7th best-controlled source) is a DLA-controlled kiln. Therefore, the MACT floors for existing large tunnel kilns are based on the level of control achieved by a DLA. We have DLA outlet test data for 7 of the 12 existing large DLA-controlled tunnel kilns, and therefore, we are confident that our test data are within the best-controlled 6 percent of sources. Furthermore, the single best-performing source, based on our available DLA outlet data, is one of the three sources for which a control efficiency is available.

Section 112(d)(2) of the CAA dictates how we must establish MACT. The MACT can either be established at the MACT floor, or can be some control level more stringent than the MACT floor or beyond-the-floor. Section 112(d)(2) of the CAA states that:

> Emissions standards promulgated under this subsection and applicable to new or existing sources of hazardous air pollutants shall require the maximum degree of reduction in emissions of the hazardous air pollutants subject to this section (including a prohibition on such emissions, where achievable) that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing sources in the category or subcategory to which such emission standard applies * * *.

Although section 112(d)(3) of the CAA does not allow us to consider cost when determining MACT floors, we do consider costs when we examine beyond-the-floor control options according to section 112(d)(2) of the CAA. We acknowledge the commenters' concerns regarding the cost of the proposed standards. We determined that beyond-the-floor control measures would not be appropriate for existing large BSCP kilns because of retrofit costs arising from technical difficulties in retrofitting DIFF, DLS/FF, or WS. Thus, the emission limits for existing large tunnel kilns in today's final rule are based on the level of control achievable with a DLA.

It is our goal to set emission standards that reflect the performance of the best-controlled sources. Once we identified the subset of the best-controlled BSCP sources (*i.e.*, DLA-controlled kilns), we used the highest emission level associated with these best performers to set the emission standard because it was our intent to set emission limits that reflect the performance that the best-controlled sources continually achieve considering variability. All sources, including the best-controlled sources, have variability in emissions. For example, data (individual test runs) from two tests conducted on one DLA-controlled kiln showed HF control efficiencies that ranged from 91.6 percent to 96.4 percent. This variability may result from APCD performance, and also could result from uncertainty associated with the test methods. Commenters have agreed with our approach to setting the production-based emission limits at or slightly higher than the highest data point, because this approach accounts for variability in the performance of individual sources, variability that could exist across the industry, and uncertainty in the test methods used to measure emissions. Furthermore, use of the highest emission level associated with the best performers prevents sources within the best-controlled subset from having to remove their existing APCD and replace it with a new one that may or may not achieve slightly better performance.

We believe and intend that a well-operated DLA will achieve the emission limits set forth in this rulemaking. However, concerns have recently been raised that if high concentrations of sulfur exist in the kiln exhaust gas stream, the ability of a well-operated DLA to reduce the target acid gas HAP emissions (*i.e.,* HF and HCl) may be compromised. The data we have does not suggest that these concerns are justified. If the EPA receives information showing that they are, EPA will take prompt action to resolve the issue through rulemaking and ensure that a facility with a well-operated DLA will be in compliance with the rule. The EPA will also work with any affected facilities to ensure that they are not subject to inappropriate sanctions before we are able to complete such a rulemaking.

D. New Source MACT

Several commenters disagreed that a large (design capacity equal to or greater than 9.07 Mg/hr (10 tph) of fired product) tunnel kiln equipped with DIFF, DLS/FF or WS was the best-controlled similar source for all new tunnel kilns. The commenters expressed concern that the DIFF, DLS/FF or WS controls proposed for all new tunnel kilns have not been demonstrated on smaller kilns. The commenters argued that emissions from small (*e.g.*, less than 9.07 Mg/hr (10 tph)) and large tunnel kilns are different because the required airflow and pollutant loading is different. The commenters stated that controls such as DIFF, DLS/FF, or WS do not decrease in size or cost for kilns below 9.07 Mg/hr (10 tph) design capacity. The commenters thought that the proposed standards for new tunnel kilns would prevent future construction of and upgrades to smaller kilns. The commenters recommended that a throughput cutoff be provided for new and reconstructed kilns. One commenter suggested that EPA create a size-cutoff for new kilns, where the best-controlled similar source for smaller new kilns is a DLA-controlled kiln, and DLS/FF, DIFF, or WS for the larger

kilns. One commenter noted the potential of existing kilns triggering new source requirements during reconstruction. The commenter requested that the ability of small businesses to overhaul existing kilns be addressed in the final rule.

These commenters have addressed several related issues including the selection of the best-controlled similar source, differences between small and large tunnel kilns, the feasibility of the proposed MACT-level controls in controlling emissions from smaller tunnel kilns or reconstructed tunnel kilns, and the costs of new controls. In responding to these comments, we have re-evaluated our analysis of MACT for new and reconstructed tunnel kilns. In the original MACT analysis developed for the proposed rule, we recognized the inherent differences between small and large tunnel kilns and established a subcategorization level of 9.07 Mg/hr (10 tph). The proposed 9.07 Mg/hr (10 tph) subcategorization level applied to both existing and new tunnel kilns. For new and reconstructed sources, we selected the best-controlled similar source (DIFF, DLS/FF, WS) that would be applied to all new sources regardless of size. In re-evaluating this analysis and in light of several comments that described the inherent differences and issues with the application of DIFF, DLS/FF, and WS control technologies to small tunnel kilns or reconstructed tunnel kilns, we have revised MACT for new sources. We also have added language in 40 CFR 63.8390(i) to provide that it is not technologically and economically feasible for two types of existing kilns that would otherwise meet the criteria for reconstruction under 40 CFR 63.2 to meet the relevant standards—*i.e.*, new source MACT—and that such kilns do not fall within the definition of reconstruction and are not subject to new source MACT requirements. The two types of kilns are existing small kilns that are rebuilt such that they become large kilns and existing large DLA-controlled tunnel kilns that are rebuilt. Today's final emission limits for those kilns and for new and reconstructed small tunnel kilns are based on the performance of DLA control technology. The final emission limits for new large tunnel kilns are based on the performance of DIFF, DLS/FF, and WS control technology. In addition, existing large tunnel kilns equipped with DIFF, DLS/FF or WS are reconstructed sources subject to new source MACT requirements if they meet the criteria for reconstruction in 40 CFR 63.2. Such kilns must continue to meet new source MACT limits, which are based on the performance of DIFF, DLS/FF, and WS.

We agree with the commenters that DIFF, DLS/FF, and WS control technologies have not been demonstrated on small kilns. However, we believe that the 9.07 Mg/hr (10 tph) size represents the threshold where emission control using DIFF, DLS/FF, or WS is technically feasible and demonstrated. Smaller kilns have smaller airflow rates than larger kilns and any fluctuations in airflow rates can have a significant impact on the ability of DIFF, DLS/FF, or WS to operate correctly. For new and reconstructed small kilns, the DLA control technology has been demonstrated to perform adequately despite the lower airflow rates; DLA control systems are not as sensitive to airflow changes as DIFF, DLS/FF, or WS control systems. In addition, existing small kilns that are rebuilt such that they become large kilns and existing large DLA-controlled kilns that are rebuilt would experience the same types of retrofit problems that we described for existing tunnel kilns, and we believe that such tunnel kilns should be subject to requirements that can be met with a DLA. The DIFF, DLS/FF, and WS control systems have been demonstrated on new large kilns. Therefore, MACT for new and reconstructed large tunnel kilns is based on DIFF, DLS/FF, and WS control and is unchanged from proposal. Finally, the determination of MACT for new sources at the floor does not take the cost of control into consideration.

Our revised standards for new and reconstructed small tunnel kilns, existing small kilns that are rebuilt such that they become large kilns, and existing large DLA-controlled kilns that are rebuilt are based on the use of a DLA, which is considerably less expensive than the other MACT controls. The revised standards should minimize the commenters' concerns over the costs of reconstructing older kilns.

E. Cost and Economic Impacts

Numerous comments were received regarding costs of the proposed rule. Commenters contended that EPA did not consider the full costs of the rule (*e.g.*, costs associated with problems retrofitting existing kilns). In general, commenters indicated that the economic impacts to brick industry would be severe. Several commenters pointed out that the brick industry is losing market share to cheaper building materials (*e.g.*, vinyl) that are more detrimental to the environment. The commenters stated that the proposed rule would have a negative effect on the future of many small businesses and the communities where they are located. The commenters expressed concern that the proposed rule would limit the opportunity for continued operation or expansion of brick plants throughout the U.S. The commenters noted that increased production costs would increase brick prices, causing brick to become less competitive with other materials and brick imports to rise, putting small U.S. companies out of business. Several commenters stated that the costs of the rule as proposed would prevent their company from ever replacing, performing a major repair on, or upgrading their existing kiln. Some commenters stated that the rule as proposed would eventually cause their company to go out of business. Some commenters added that they live in an economically depressed area and other jobs are not readily available.

One commenter disagreed with the Administrator's certification that the proposed rule would not create a significant impact on a substantial number of small entities. The commenter submitted an Economic Impacts Analysis (EIA). The commenter calculated and presented the Sales Test, Cash Flow Test, and Profit Test criteria which the commenter believes shows a greater number of small businesses at risk than does EPA's EIA. In addition, the commenter provided several specific comments on EPA's EIA. The commenter argued that the rule as proposed is a significant rulemaking per Executive Order (E.O.) 12866. A few commenters provided specific comments on the monitoring, reporting, and recordkeeping costs in the Office of Management and Budget (OMB) 83–I form and supporting statement.

Commenters also questioned the environmental benefits of the BSCP rule as proposed. One commenter questioned why the BSCP rule is necessary if brick manufacturing emissions are not causing public health problems or adverse environmental effects. Another commenter argued that there is no epidemiological evidence that anyone in North America has been harmed by brick plant HF emissions and that cancer incidence in brick plant workers is not higher than for the general population.

As previously mentioned in this preamble, section 112(b) of the CAA contains a list of HAP identified by Congress and authorizes EPA to add to that list pollutants that present or may present a threat of adverse effects to human health or the environment. Section 112(c) of the CAA requires us to list all categories and subcategories of major and area sources of HAP and to

establish NESHAP for the listed source categories and subcategories under section 112(d) of the CAA. Because BSCP manufacturing is a listed source category containing major sources of HAP, we are required by the CAA to establish NESHAP for BSCP manufacturing.

As stated previously, MACT can either be established at the MACT floor, or can be some control level more stringent than the MACT floor or beyond the floor. Section 112(d)(3) of the CAA does not allow us to consider cost when determining MACT floors. We are only allowed to consider costs when we examine beyond-the-floor control options according to section 112(d)(2) of the CAA. We acknowledge the commenters' concerns regarding the cost of the proposed rule. At proposal, we determined that beyond-the-floor control measures would not be appropriate for the BSCP industry, in part because of costs.

Following proposal, we reevaluated the MACT floors for existing tunnel kilns and have revised the standards to incorporate use of DLA on existing large tunnel kilns. We also revised the MACT standards for new and reconstructed small tunnel kilns, existing small kilns that are rebuilt such that they become large kilns, and existing large DLA-controlled tunnel kilns that are rebuilt such that the standards are based on the level of performance that can be achieved by a DLA. (MACT requirements for existing small tunnel kilns and new and reconstructed large tunnel kilns remain unchanged.) We continue to agree that beyond-the-floor control measures are not warranted for the BSCP industry. The revised MACT standards for new and reconstructed small tunnel kilns, existing small kilns that are rebuilt such that they become large kilns, and existing large DLA-controlled kilns that are rebuilt are the same as the revised standards for existing large tunnel kilns. These revised standards are less costly and should reduce concerns regarding cost of retrofitting or rebuilding existing kilns and starting up new small kilns. Environmental benefits of today's final BSCP rule are discussed later in this preamble.

EPA reviewed the economic impact analysis report submitted by the commenter. We have revised our EIA to identify additional small businesses affected by the rule. We have also incorporated the lower revised cost estimates into the EIA. Impacts on small businesses are considerably lower in the revised analysis and prices are predicted to rise by less than one percent on average. The results of our revised EIA, as well as a discussion of the impact of today's final rule on small businesses, are presented later in this preamble.

Comments on the costs of monitoring, reporting, and recordkeeping were incorporated into the revised OMB 83–I form and supporting statement as appropriate. A discussion of the OMB 83–I form and supporting statement prepared in compliance with the Paperwork Reduction Act is presented later in this preamble.

F. Test Data and Emission Limits

1. HF and HCl Emission Limits

Commenters stated that the test data EPA used to set the HF and HCl limits are questionable. An independent consultant, hired by the BSCP industry, reviewed the data and determined that six of the seven test runs used the wrong filter media. A glass filter media was used instead of a Teflon filter. The commenter suggested that, as a result, the data could be biased. One commenter also charged that EPA removed high test runs without any technical basis even though all of these runs met the same quality control (QC) criteria as other runs. Finally, one commenter stated that EPA's use of both HF and total fluorides (TF) data to develop the average uncontrolled HF emission factor (which was used in developing the HF emission limit) was unsupported, and the commenter believes that EPA should use only the HF test data because HF is the regulated pollutant.

We have reviewed the emission tests mentioned by the commenter and agree that there are some problems with most of the available test data, and we have accounted for any potential bias by revising the emission limits. In consultation with EPA's Emission Measurement Center (EMC), we used a conservative approach to determine the possible impact of the bias on the percent reduction emission limits. The analysis showed that our available percent reduction data could be as much as about 5 percent high, and we, therefore, decreased the corresponding HF and HCl percent reduction requirements by 5 percent and adjusted the corresponding production-based emission limits accordingly. In response to the commenter's assertion that we dropped two test runs without a technical reason, we examined the test runs in question and incorporated one of the two runs back into the data set used for developing the standards. Finally, in response to the appropriateness of using TF data in calculating the average HF emission factor, while the average of the TF and HF data sets suggest that TF and HF measurements are similar, we recognize the inconsistencies between the few available side-by-side HF and TF tests and we, therefore, decided to remove the TF data from the HF emission factor calculation. Based on the three issues discussed above, we revised the emission limits for kilns where MACT is based on use of DIFF, DLS/FF, or WS (*i.e.*, for new large kilns). Today's final rule requires new large kilns to limit HF emissions to 0.029 kilograms per megagram (kg/Mg) (0.057 pounds per ton (lb/ton)) of fired product or reduce HF emissions by 90 percent; and limit HCl emissions to 0.028 kg/Mg (0.056 lb/ton) or reduce HCl emissions by 85 percent.

The revised HF and HCl emission limits for existing large tunnel kilns, new and reconstructed small tunnel kilns, existing small kilns that are rebuilt such that they become large kilns, and existing large DLA-controlled tunnel kilns that are rebuilt are based on the use of a DLA for HAP reduction. Two HF emission tests (both conducted on the same source) and two total fluorides emission test are available for DLA-controlled kilns, and the tests showed HF or TF control efficiencies of 92.3 percent (HF), 96.4 percent (HF), 93.3 percent (TF), and 93.5 percent (TF). Similar to the DIFF and DLS/FF tests, we identified problems with the two HF emission tests that could have biased the control efficiencies high. To account for this uncertain bias, and considering typical vendor guarantees for DLA systems (vendors will guarantee 90 percent HF reduction unless a lesser percentage meets the customer's need, in which case the vendors typically provide lower guarantees), we selected a percent reduction emission limit of 90 percent for HF. We applied this 90 percent reduction to the revised average HF emission factor of 0.29 kg/Mg (0.57 lb/ton) to calculate a production-based HF emission limit of 0.029 kg/Mg (0.057 lb/ton). Control efficiency data for HCl are available from two tests on a single DLA-controlled kiln. The tests averaged 30.7 percent control, and we selected a percent reduction HCl emission limit of 30 percent. We applied this 30 percent reduction to the average HCl emission factor of 0.19 kg/Mg (0.37 lb/ton) to calculate a production-based HCl emission limit of 0.13 kg/Mg (0.26 lb/ton).

Percent of HAP metals in PM. Several commenters noted that HAP metals and PM data from four facilities (0.16 percent, 0.99 percent, 2.8 percent, and 4.5 percent) were used to arrive at 1.9 percent of the PM is PM HAP. The

commenters stated that EPA included an invalid, high data point for manganese in developing the percentage of PM that is PM HAP. We have examined the test run mentioned by the commenters and agree that the run should be voided. Our revised analyses now indicate that the overall percentage of PM that is HAP metals is 0.72 percent.

PM limit. Other commenters argued that a PM limit for brick kilns is unnecessary. One commenter noted that metals occur naturally in clays or shales used to make bricks and that PM emissions from BSCP plants are clay dust. The commenter argued that metals are locked into the structure of the clay dust and are not bio-available to affect humans through respiratory adsorption, ingestion, or dermal contact. Some commenters noted that there is limited information on the amount of HAP metals in the PM emitted. Commenters pointed out that EPA is not setting a PM limit for clay refractory kilns. Some commenters disagreed that PM is an adequate surrogate for HAP metals emissions. Commenters also requested that a percent reduction alternative be allowed for the PM standard, similar to the percent reduction limits for HF and HCl.

We agree that PM emitted from BSCP facilities is largely clay dust, and that metals are naturally occurring in clays and shales used to make bricks. Many BSCP facilities apply surface coatings or body additives containing HAP metals to their products, and these coatings are another potential source of HAP metals emissions. These types of additives and coatings are not used in the manufacture of clay refractories.

We have four emission tests for HAP metals from tunnel kilns and all of these tests measured some level of HAP metals emissions including emissions of antimony, arsenic, beryllium, cadmium, chromium, cobalt, mercury, manganese, nickel, lead, and selenium. Based on these data, we believe that all kilns emit some level of HAP metals and, therefore, we are regulating HAP metals emissions. Test data for HAP metals are not available for clay refractories kilns.

We are unaware of any information to support the idea that the HAP metals are locked into the structure of the clay and are not bio-available to affect humans. In the absence of such information and in the interest of protecting public health, we assume conservatively that the HAP metals are bio-available and could affect human health. This assumption is consistent with the conservative approach embodied in the CAA section 112(b)(2) directive that EPA add pollutants to the statutory list of HAP that ''may'' present adverse risks to human health and the environment through various exposure routes.

We used PM as a surrogate for HAP metals so that individual emission limits would not be based on the limited and variable data. We examined the available HAP metals test data and calculated that about 95 percent of the HAP metals emissions are in particulate form. Furthermore, the types of control technologies used on BSCP kilns remove PM and would indiscriminately remove particulate HAP metals. The United States Court of Appeals for the District of Columbia Circuit stated in a December 15, 2000 decision (in response to the National Lime Association (NLA) challenge of the use of PM as a surrogate for HAP metals), ''if HAP metals are invariably present in cement kiln PM, then even if the ratio of metals to PM is small and variable, or simply unknown, PM is a reasonable surrogate for the metals—assuming * * * that PM control technology indiscriminately captures HAP metals along with other particulates.'' Our use of PM as a surrogate for HAP metals in the final BSCP rule is consistent with this decision.

We typically do not include percent reduction as an alternative for PM because a percent reduction standard rewards those facilities that have high inlet PM loadings. We believe that this is different from the percent reduction standards for HF and HCl because facilities do not typically have options for reducing the uncontrolled levels of HF or HCl. Therefore, we are not providing an alternative percent reduction standard for PM.

The revised PM emission limit for existing large tunnel kilns, new and reconstructed small tunnel kilns, existing small kilns that are rebuilt such that they become large kilns, and existing large DLA-controlled tunnel kilns that are rebuilt is based on the use of a DLA. Data from four tests conducted at the outlets of DLA were available for establishing a production-based emission limit, and we selected the highest PM data point as the emission limit in order to account for variability. Today's final rule contains a PM emission limit of 0.21 kg/Mg (0.42 lb/ton) of fired product for existing large tunnel kilns, new and reconstructed small tunnel kilns, existing small kilns that are rebuilt such that they become large kilns, and existing large DLA-controlled tunnel kilns that are rebuilt. The PM emission limit for new and reconstructed large tunnel kilns is unchanged from proposal (0.060 kg/Mg (0.12 lb/ton) of fired product).

G. Monitoring Requirements

Numerous comments were received on the proposed monitoring requirements. Some commenters felt that the monitoring, reporting, and recordkeeping requirements were unreasonable. Commenters noted that the monitoring requirements would require additional and higher skilled personnel.

Under section 114(a)(3) of the CAA, owners or operators of major sources are required to conduct enhanced monitoring of affected sources to ensure compliance with applicable emission standards. In response to this mandate, we have incorporated continuous compliance requirements into all part 63 standards, generally in the form of continuous emissions monitoring or continuous parameter monitoring. We believe that continuous monitoring is needed to ensure that emission controls are operated properly. However, 40 CFR 63.8(f) allows owners and operators of affected sources to request approval for alternative monitoring procedures to demonstrate compliance with emission limitations.

Although we have eliminated some of the proposed monitoring requirements (such as fabric filter inlet temperature monitoring) from today's final rule, we have retained most of the proposed monitoring requirements. We believe that those monitoring requirements are the minimum needed to ensure continuous compliance with the emission limits.

1. Operation, Maintenance, and Monitoring (OM&M) Plan

Some commenters felt that development of an OM&M plan was overly burdensome. One commenter thought the requirement to include OM&M procedures for kiln operation was unjustified. Another commenter noted possible contradictions of OM&M plan requirements and Table 7 of the proposed BSCP rule (the table showing applicability of the General Provisions to part 63).

After reviewing these comments, we decided that OM&M plans do not have to include procedures for monitoring the operation and maintenance of tunnel kilns, and we have written the final rule accordingly. However, we continue to believe that site-specific OM&M plans are necessary to ensure continued proper operation of any control device that is used to comply with the final rule.

Regarding the apparent contradictions between 40 CFR 63.8425(b)(8) through (10) and Table 7 of the proposed rule, we did not cite the General Provisions

to part A in the proposed 40 CFR 63.8425 (b)(8) through (10), but specified that OM&M plans must include operation and maintenance, quality assurance, and reporting and recordkeeping procedures that are consistent with the General Provisions. Therefore, we believe there is no contradiction between 40 CFR 63.8425 (b)(8) through (10) and Table 7 of the proposed rule. However, we did clarify in Table 7 of the final rule that 40 CFR 63.8(c)(4) does not apply to subpart JJJJJ because 40 CFR 63.8425 and 63.8465 specify the requirements for continuous monitoring systems (CMS).

Some commenters requested clarification on whether OM&M plans (and startup, shutdown, and malfunction plans (SSMP)) are required for kilns that would not be subject to control requirements (*e.g.*, existing small tunnel kilns). Another commenter questioned if an OM&M plan would be required if compliance is achieved without a control device. The BSCP NESHAP applies only to affected sources. Under today's final rule, an existing small tunnel kiln is not an affected source. Therefore, the requirements for OM&M plans, SSMP, and other monitoring, notification, reporting, and recordkeeping requirements do not apply to those kilns. Owners or operators will be required to prepare an OM&M plan and SSMP for any kiln that is an affected source even if the kiln can meet the emission limits without the use of a control device.

2. Bag Leak Detectors

Commenters indicated that bag leak detectors are unnecessary, overly protective, and maintenance intensive. The commenters noted that bag failure is noticeable because PM emissions would be visible at the stack. Several commenters requested that opacity or visible emissions (VE) determinations be allowed as opposed to bag leak detectors.

We agree with the commenters that periodic VE checks should provide a reasonable alternative to bag leak detectors, and we have written the final rule accordingly. In today's final rule, owners and operators of affected kilns that are controlled with a DLS/FF or DIFF can choose between installing a bag leak detection system or performing daily VE checks. Today's final rule also includes a provision for decreasing the frequency of VE checks provided no VE are observed.

3. Water Injection Rate Monitoring on DLS/FF

Three commenters stated that DLS/FF water injection rate monitoring has nothing to do with HF or HCl removal (but is important for sulfur dioxide (SO_2) removal) and recommended that the provision for monitoring DLS/FF water injection rate be eliminated.

After reviewing the available information, we decided to eliminate the requirement for water injection rate monitoring on affected DLS/FF-controlled kilns. Water injection is used to enhance the removal of SO_2 by a DLS/FF, but has little effect on removal of HF and HCl.

4. Fabric Filter Inlet Temperature

Several commenters recommended that the requirement to monitor fabric filter inlet temperature be eliminated from the rule as proposed. The commenters explained that it would be impractical to hold the fabric filter inlet temperature to within 25 degrees below the average established during the performance test. The fabric filter inlet temperature varies frequently, much more than 25 degrees, because of many process factors. Other commenters noted that fabric filter inlet temperature has little relevancy to acid gas control. One commenter stated that control systems using hydrated lime are generally known to have increased HCl and HF removal when temperatures increase.

As a result of these comments, we have eliminated the requirement for monitoring fabric filter inlet temperatures on affected kilns that are controlled with a DLS/FF or DIFF. We believe that the other monitoring requirements (*e.g.*, lime feed rate monitoring and periodic VE checks) that we have incorporated into the final rule are adequate for ensuring continuous compliance with the emission limits.

5. DLA Parameter Monitoring

Many commenters suggested potential parametric monitoring requirements for DLA that could be used to demonstrate continuous compliance. Various commenters suggested documenting use, on a continuous basis, of the same limestone that was used during the performance test demonstrating compliance. Other suggestions included monitoring pressure drop (demonstrating airflow); limestone flow; and inlet and/or exhaust gas temperature.

We have incorporated parameter monitoring requirements for DLA into the final rule based on information provided by commenters and a recent site visit to a facility operating a DLA. Today's final rule will require owners and operators of affected kilns with DLA to continuously monitor the pressure drop across the DLA; perform a daily visual check of the limestone hopper and storage bin (located at the top of the DLA), and record the limestone feeder setting daily; and perform periodic VE observations. In addition, owners and operators will be required to document the source of the limestone used during the most recent performance test and maintain records that demonstrate that the source of limestone has not changed.

6. Continuous Emission Monitoring Systems

In the preamble to the proposed rule, we requested comment on requiring the application of PM continuous emission monitoring systems (CEMS) as a method to assure continuous compliance with the proposed PM emission limits for BSCP tunnel kilns. While we believe there is evidence that PM CEMS should work on BSCP tunnel kilns, we received no comments in support of requiring PM CEMS. Commenters opposed use of CEMS when less expensive, but effective, parametric monitoring alternatives are available. Therefore, today's final rule does not require use of PM CEMS or any other type of CEMS. We believe that the parameter monitoring requirements specified in the final rule are adequate for ensuring continuous compliance.

7. Establishing/Re-Establishing Production Rate

Several commenters requested that the process weight threshold be based on average annual throughput instead of hourly or monthly throughput. One commenter pointed out that the nature of brick production does not allow for spikes in emissions. Several commenters stated that the averaging period used to determine the MACT floor applicability to existing tunnel kilns must have the same production averaging basis as the data used in setting the subcategorization level. The commenters stated that it is not reasonable to base the standard on a 12-month averaging period and then enforce the floor on an instantaneous or 30-day rolling averaging period.

One commenter requested clarification as to whether EPA would require a retest if the maximum production level of a kiln would be higher than the level observed during the performance test. The commenter added that several States recognize that capacity and maximum production are difficult figures to calculate for a brick kiln because they are highly dependent

on the specific characteristics of a product (size, percent void).

We agree with the commenters that a kiln's process weight threshold (*e.g.*, design capacity level) should be based on average annual tonnage rather than on the proposed 30-day rolling average. We have revised the final BSCP rule accordingly to require the ton per hour production capacity of a kiln to be calculated based on the maximum amount of BSCP (in tons) that can be produced in a 12-month period divided by 8,760 hours per year.

Regarding the question of whether we will require a retest if the maximum production level of a kiln is higher than the level observed during the performance test, a retest will be required because an increase in production is likely to increase emissions, and the operating limits that are based on the performance test would no longer demonstrate continuous compliance with the emission limits.

8. Test Methods

One commenter requested that we allow any of the applicable EPA Method 5 variations to demonstrate compliance with the PM standard. The commenter pointed out that a facility with high SO_2 could reduce the potential for SO_2 to be counted as PM by using EPA Method 5B. We are not including EPA Method 5B as a test method because our emission limit is based on EPA Method 5 and includes tests on sources with high SO_2 emissions. Individual facilities will have the option of requesting an alternative test method.

One commenter on the proposed clay ceramics rule requested that the final rule provide facilities with the option to use either EPA Method 26A or EPA Method 320 for all required stack testing for HF and HCl. This comment applies for both BSCP and clay ceramics. Therefore, we have modified today's final BSCP rule to include EPA Method 320 as an alternative to EPA Method 26A.

H. Startup, Shutdown, and Malfunction

1. APCD Bypass

Several commenters stated that the BSCP rule, as proposed, would not allow the kiln control device to be bypassed at any time. Various commenters stated that the proposed MACT controls (DIFF, DLS/FF, or WS) must maintain a given flow to perform efficiently. Thus, the APCD would dictate how the kiln is operated. During initial kiln startup or subsequent kiln startups or shutdowns, airflow temperatures and volumes would be below APCD design volumes. The heat from the furnace zone could damage the kiln walls and cars if not vented. Therefore, the ability to bypass during startups, routine maintenance, and emergency shutdowns of the APCD is needed.

Several commenters noted that brick kilns are constant flow devices that cannot just be turned off without detrimental impact to large volumes of product (*e.g.*, character, color, and quality of brick) and the kiln itself. The commenters stated that days to weeks may be needed to properly shut down a brick kiln. One commenter noted that kilns operate continuously 2 to 3 years before being shut down for routine maintenance.

Commenters stated that short periods of bypass are necessary to conduct routine preventive maintenance inspections of APCD. Commenters pointed out that the control devices currently employed have and use bypass capability for routine maintenance and emergency repairs.

We generally agree with the commenters that some provision is needed to allow the control device on tunnel kilns to be bypassed for routine maintenance of the control device, and we have revised the rule accordingly. Under 40 CFR 63.8420(e) of today's final rule, owners and operators of an affected tunnel kiln can bypass the kiln control device for a cumulative period of up to 4 percent of the annual operating hours for the kiln. Based on the data and other information submitted by commenters on the proposed rule, we believe that the amount of time equating to 4 percent of annual kiln operating hours is adequate for completing routine maintenance on the types of controls that are likely to be used to comply with the BSCP NESHAP.

To comply with this bypass provision, owners or operators must submit a request to us for a routine control device maintenance exemption. The request must justify the need for the routine maintenance on the control device and the time required to complete the maintenance activities. The request also must describe the maintenance activities and the frequency of the maintenance activities, explain why the maintenance cannot be accomplished during kiln shutdowns, and describe how emissions will be minimized during the period when the kiln is operating and the control device is offline. Upon approval, the request for exemption must be incorporated by reference in, and attached to, the affected source's title V permit. During any period when the kiln is operating and the kiln control device is offline, the owner or operator must minimize HAP emissions. The duration of such periods also must be minimized.

We also note that the bypass provision included in today's final rule does not apply to startups, shutdowns, or malfunctions. 40 CFR 63.6(f)(1) explicitly states that nonopacity emission standards, such as the proposed emission limits for HF, HCl, and PM, ''* * * apply at all times except during periods of startup, shutdown, and malfunction * * *'' Startups, shutdowns, and malfunctions must be addressed in a facility's SSMP.

2. Initial Startup

Commenters stated that it is impractical to meet emission standards during initial startup of a tunnel kiln. The commenters indicated that it can take from weeks to a year to bring new BSCP kilns online. In addition, APCD such as DIFF, DLS/FF, or WS cannot be brought online until adequate temperature and airflow ranges are met. The commenters indicated that roughly 75 percent of design gas flow rate or kiln production rate must be obtained before a DIFF or DLS/FF could begin to operate properly. Another commenter stated that the proposed initial testing deadline (180 days following the compliance date) would not provide enough time for a new kiln to come up-to-speed.

We recognize that an extended period of time may be needed for the initial startup of a new kiln and have added a definition of initial startup to the BSCP final rule to address the concerns expressed by the commenters. The definition differentiates between DLA-controlled kilns and DIFF-, DLS/FF-, or WS-controlled kilns, because DLA are not sensitive to airflow and only require that the kiln gases are hot enough to avoid condensation in the DLA. Avoiding condensation is necessary because water and calcium carbonate (limestone) combine to make cement, and any introduction of water in the DLA reaction chamber could cause the limestone to be cemented together. In the final rule, we provided the following definition: ''Initial startup'' means: (1) For a new or reconstructed tunnel kiln controlled with a DLA, and for a tunnel kiln that would be considered reconstructed but for 40 CFR 63.8390(i)(1) or 40 CFR 63.8390(i)(2), the time at which the temperature in the kiln first reaches 260 °C (500 °F) and the kiln contains product; or (2) for a new or reconstructed tunnel kiln controlled with a DIFF, DLS/FF, or WS, the time at which the kiln first reaches a level of production that is equal to 75 percent of the kiln design capacity or 12 months

after the affected source begins firing BSCP, whichever is earlier. Although some commenters suggested that initial startup for DIFF-, DLS/FF-, and WS-controlled kilns be defined in terms of airflow, we defined initial startup in terms of production rate for DIFF-, DLS/FF-, and WS-controlled kilns because the final rule requires owners and operators of affected sources to monitor production rate, whereas flowrate monitoring is not required under today's final rule. We included the stipulation for DIFF-, DLS/FF-, and WS-controlled kilns that initial startup occurs no later than 12 months after the new kiln begins firing BSCP to prevent facilities from operating an affected new or reconstructed kiln at just less than 75 percent of the kiln design capacity long term to circumvent the final rule. A similar stipulation is not necessary for DLA-controlled kilns because the kiln temperature requirement is such that the kiln cannot produce BSCP until well after the temperature is reached.

By defining initial startup in today's final rule, we also have clarified the compliance date for new and reconstructed sources, which is specified in terms of the initial startup. Thus, new and reconstructed DIFF-, DLS/FF-, and WS-controlled tunnel kilns beginning operation after the promulgation date will be allowed to reach 75 percent of the kiln design capacity before initial startup is triggered and the APCD must come online. New and reconstructed DLA-controlled tunnel kilns, and tunnel kilns that would be considered reconstructed but for 40 CFR 63.8390(i)(1) or 40 CFR 63.8390(i)(2), beginning operation after the promulgation date will trigger initial startup when the temperature in the kiln first reaches 260°C (500°F) and the kiln contains product. Performance testing is required 180 days following the compliance date (*i.e.*, 180 days following initial startup). Facilities wishing to conduct performance testing to determine the level of air pollution control necessary may conduct such testing prior to achieving initial startup.

3. Startup

Two commenters expressed concern with how startup is defined with respect to the proposed rule. The commenters stated that, under the proposed rule, a kiln could be considered to be operating if only one burner was operating. However, a kiln could have as many as 100 burners or more. To clarify what constitutes kiln startup we added to today's final rule a definition of ''startup'' that incorporates ''starting the production process.''

4. Deviations

One commenter felt that the requirement of reporting emissions as deviations during startup, shutdown, or malfunction (SSM) is inappropriate because facilities are not required to be in compliance with the emission limitations during SSM. Another commenter requested that EPA make it clear the deviations are not necessarily an indication of noncompliance or excess emissions.

The term deviation applies to events during which an affected source fails to meet an emission limitation or comply with another requirement of the final rule. Deviations are not synonymous with violations; depending on the circumstances, a deviation may or may not be a violation of an applicable requirement. We agree with the commenter that an affected source need not be in compliance with emission limits during periods of SSM. Although we consider non-compliance with emission limits during startup, shutdown, and malfunction to be deviations from the emission limits, we do not consider these deviations to be violations of the emission limits. 40 CFR 63.7(e)(1) specifies that, ''Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under 40 CFR 63.6(e).'' As indicated in Table 7 of the final rule, this language of the general provisions to part 63 does apply to subpart JJJJJ. The definition of deviation included in today's final rule is consistent with how deviation is defined in other NESHAP, and has not been changed since proposal.

I. Risk-Based Approaches

The preamble to the proposed BSCP rule requested comment on whether there might be further ways to structure the BSCP 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. Specifically, we requested comment on the technical and legal viability of two risk-based approaches: (1) An applicability cutoff for threshold pollutants under the authority of CAA section 112(d)(4); and (2) subcategorization and delisting under the authority of CAA sections 112(c)(1) and 112(c)(9).[3] We indicated that we would evaluate all comments before determining whether either approach would be included in the final BSCP rule. Numerous commenters submitted detailed comments on these risk-based approaches. These comments are summarized in the BSCP Response-to-Comments document (see **SUPPLEMENTARY INFORMATION** section).

Based on our consideration of the comments received and other factors, we have decided not to include the risk-based approaches in today's final BSCP rule. The risk-based approaches described in the proposed BSCP rule and addressed in the comments we received raise a number of complex issues. In addition, we are under time pressure to complete the BSCP rule, because the statutory deadline for promulgation has passed and a deadline suit has been filed against EPA. (See Sierra Club v. Whitman, Civil Action No. 1:01CV01537 (D.D.C.).) Given the range of issues raised by the risk-based approaches and the need to promulgate a final rule expeditiously, we believe that it is appropriate not to include any risk-based approaches in today's final BSCP rule. Nonetheless, we expect to continue to consider risk-based approaches in connection with other proposed NESHAP where we have described and solicited comment on such approaches. Finally, while we are not including risk-based approaches in today's final BSCP rule, we have included a number of other measures that we expect will reduce the costs and burdens on the affected sources.

III. Summary of the Final Brick and Structural Clay Products Manufacturing NESHAP

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

Today's final 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 (including, but not limited to, face brick, structural brick, and brick pavers); 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

[3] See 68 FR 1276 (January 9, 2003) (Plywood and Composite Wood Products Proposed NESHAP) and docket number A–98–44, Item No. II–D–525 (White papers submitted to EPA outlining the risk-based approaches).

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 89 companies. Seventy-six of the companies are small businesses, and these 76 companies own 92 of the BSCP manufacturing facilities. Thirteen of the companies are large businesses, and these 13 companies own 97 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 314 permitted and operable tunnel kilns were reported by industry; 302 of these kilns are located at facilities that are estimated, based on uncontrolled emissions, to be major sources. Of the 302 tunnel kilns located at major sources, 275 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.

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 PM and SO_2. Other sources of HAP emissions at BSCP manufacturing plants are the raw material processing and handling equipment. The APCD that are used by the industry to control emissions from kilns include DIFF, DLS/FF, DLA, WS, and fabric filters.

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 large tunnel kiln. Large tunnel kilns have 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 final rule focuses on those process streams from existing large tunnel kilns that exhaust directly to the atmosphere or to an APCD. For existing large 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 today's final 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 large tunnel kilns that ducted 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 final rule; any process stream from such kilns that is ducted to a sawdust dryer is not subject to those requirements.

By contrast, for existing large tunnel kilns 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.

In addition, each new or reconstructed tunnel kiln is an affected source and all process streams from new or reconstructed tunnel kilns are subject to the requirements of today's final rule. The requirements of today's final rule for new and reconstructed tunnel kilns are different for small and large kilns. Small tunnel kilns have design capacities less than 9.07 Mg/hr (10 tph) of fired product, and large tunnel kilns have design capacities equal to or greater than 9.07 Mg/hr (10 tph) of fired product. A source is a new affected source if construction began on or after July 22, 2002. An affected source is reconstructed if the criteria defined in 40 CFR 63.2 are met, as qualified by 40 CFR 63.8390(i). 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 an annual average basis is not subject to the requirements of today's final rule. Kilns that are used exclusively for R&D and not used to manufacture products for commercial sale, except in a *de minimis* manner, are not subject to the requirements of today's final rule. Finally, kilns that are used exclusively for setting glazes on previously fired products are not subject to the requirements of today's final rule.

C. When Must I Comply With the Final Rule?

Existing affected sources must comply within 3 years of May 16, 2003. New and reconstructed affected sources with an initial startup before May 16, 2003 must comply no later than May 16, 2003. New and reconstructed affected sources with an initial startup after May 16, 2003 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 final 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 final rule contains HF, HCl, and PM emission limits for existing, new, and reconstructed affected sources at BSCP manufacturing facilities, as well as for the following affected sources that would be considered reconstructed but for 40 CFR 63.8390(i): Existing small tunnel kilns whose design capacity is increased such that it is equal to or greater than 9.07 Mg/hr (10 tph) of fired product or existing large DLA-controlled kilns.

If you own or operate an existing large tunnel kiln, a new or reconstructed small tunnel kiln, an existing small kiln that is rebuilt such that it becomes a large kiln, or an existing large DLA-controlled kiln that is rebuilt, you must meet an HF emission limit of 0.029 kg/Mg (0.057 lb/ton) of fired product or reduce uncontrolled HF emissions by at least 90 percent for affected process streams. You must meet an HCl emission limit of 0.13 kg/Mg (0.26 lb/ton) of fired product or reduce uncontrolled HCl emissions by at least 30 percent. You are required to meet a PM emission limit of 0.21 kg/Mg (0.42 lb/ton) of fired product.

If you own or operate a new or reconstructed large tunnel kiln, you must meet an HF emission limit of 0.029 kg/Mg (0.057 lb/ton) of fired product or reduce uncontrolled HF emissions by at least 90 percent for all process streams. You must meet an HCl emission limit of 0.028 kg/Mg (0.056 lb/ton) of fired product or reduce uncontrolled HCl emissions by at least 85 percent. You are required to meet a PM emission limit of 0.060 kg/Mg (0.12 lb/ton) of fired product.

E. What Are the Operating Limits?

In addition to the emission limits, today's final rule includes operating limits that apply to APCD used to comply with the final rule. The operating limits require you to maintain certain process or APCD parameters within levels established during performance tests. Each facility affected by today's final rule is required to prepare, implement, and revise, as necessary, an OM&M plan. The OM&M plan generally specifies the operating parameters to be monitored; the frequency that parameter values will be determined; the limits for each parameter; procedures for proper operation and maintenance of APCD and monitoring equipment; procedures for responding to parameter deviations; and procedures for documenting compliance.

We have established operating limits for DLA, DIFF, DLS/FF, and WS. If you operate a DLA, you must maintain the average pressure drop across the DLA for each 3-hour block period at or above the average pressure drop established during the performance test. You also must maintain an adequate amount of limestone in the limestone hopper, storage bin (located at the top of the DLA), and DLA at all times. In addition, you must maintain the limestone feeder setting at or above the level established during the performance test and you must use the same grade of limestone from the same source as was used during the performance test. Finally, you must maintain no VE from the DLA stack.

If you operate a DIFF or DLS/FF, you must maintain free-flowing lime in the feed hopper or silo and to the APCD at all times and maintain the feeder setting at or above the level established during your performance test. In addition, you have the option of using a bag leak detection system or monitoring VE. If you use a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alarm and complete corrective actions according to your OM&M plan, and 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. If you monitor VE, you must maintain no VE from the DIFF or DLS/FF stack.

If you operate a WS, you are 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 rule, you must 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 are 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 you would use, the appropriate operating parameters that you would monitor, and the frequency that the operating parameter values would be determined and recorded. You must establish site-specific operating limits during your performance test based on the information included in the approved alternative monitoring procedures request. You are required to install, operate, and maintain the parameter monitoring system for the alternative APCD or technique according to your OM&M plan.

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 must 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 must also test at the APCD inlet. You must conduct each test while operating at the maximum production level.

Under today's final rule, you are required to measure emissions of HF, HCl, and PM. You must measure HF and HCl emissions using EPA 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 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 WS) is present. As an alternative to using EPA Methods 26A or 26, you may measure HF and HCl emissions using EPA Method 320 ''Measurement of Vapor Phase Organic and Inorganic Emission by Extractive FTIR'' 40 CFR part 63, appendix A. When using EPA Method 320, you must follow the analyte spiking procedures of section 13 of Method 320 unless you can demonstrate that the complete spiking procedure has been conducted at a similar source. Particulate matter emissions must be measured using EPA 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 must 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 must 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 are required to install the CMS (*e.g.*, continuous parameter monitoring system) equipment to be used to demonstrate continuous compliance with the operating limits. During your initial test, you must use the CMS to establish site-specific operating parameter values that represent your operating limits.

If you operate a DLA, you must continuously measure the pressure drop across the DLA during the performance test and determine the 3-hour block average pressure drop. You also must maintain an adequate amount of limestone in the limestone hopper, storage bin (located at the top of the DLA), and DLA at all times. In addition, you must establish your limestone feeder setting one week prior to the performance test and maintain the feeder setting for the one-week period

that precedes the performance test and during the performance test. Finally, you are required to document the source and grade of the limestone used during the performance test.

If you operate a DIFF or DLS/FF, you are 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 are required to record the feeder setting for the three test runs. If the lime feed rate varies, you are required to determine the average feed rate from the three test runs. If you use a bag leak detection system, you must submit analyses and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems.

If you operate a WS, you are 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 are 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?

Today's final rule requires that you demonstrate continuous compliance with each emission limitation that applies to you. You must follow the requirements in your OM&M plan and document conformance with your OM&M plan. You are required to operate a CMS to monitor the operating parameters established during your initial performance test as described in the following paragraphs. The CMS must collect data at least every 15 minutes, and you 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, out-of-control periods, or periods of routine control device maintenance covered by a routine control device maintenance exemption) to have a valid hour of data. You must operate the CMS at all times when the process is operating. You 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 must 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, out-of-control periods, or periods of routine control device maintenance covered by a routine control device maintenance exemption).

If you operate a DLA, you must collect and record data documenting the DLA pressure drop and reduce the data to 3-hour block averages. You must maintain the average pressure drop across the DLA for each 3-hour block period at or above the average pressure drop established during the performance test. You also must verify that the limestone hopper, storage bin (located at the top of the DLA), and DLA contain an adequate amount of limestone by performing a daily visual check of the limestone hopper and the storage bin, and if the hopper or storage bin do not contain adequate limestone you must promptly initiate and complete corrective actions according to your OM&M plan. You also must record the limestone feeder setting daily to verify that the feeder setting is being maintained at or above the level established during the performance test. You also must use the same grade of limestone from the same source as was used during the performance test and maintain records of the source and type of limestone. Finally, you must perform daily, 15-minute VE observations in accordance with the procedures of EPA Method 22, ''Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares,'' 40 CFR part 60, appendix A. During the VE observations, the kiln must be operating under normal conditions. If VE are observed, you must promptly initiate and complete corrective actions according to your OM&M plan. If no VE are observed in 30 consecutive daily EPA Method 22 tests, you may decrease the frequency of EPA Method 22 testing from daily to weekly for that kiln stack. If VE are observed during any weekly test, you must promptly initiate and complete corrective actions according to your OM&M plan and you must resume EPA Method 22 testing of that kiln stack on a daily basis until no VE are observed in 30 consecutive daily tests, at which time you may again decrease the frequency of EPA Method 22 testing to a weekly basis.

For DIFF and DLS/FF systems, you must 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 must promptly initiate and complete corrective actions according to your OM&M plan. You 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. If you use a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alarm and complete corrective actions according to your OM&M plan. You also must 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 is counted. If corrective action is required, each alarm must be counted as a minimum of 1 hour, and if you take longer than 1 hour to initiate corrective action, the alarm time must be counted as the actual amount of time taken to initiate corrective action. As an alternative to using a bag leak detection system, you may monitor VE. If you choose to monitor VE, you must perform daily, 15-minute VE observations in accordance with the procedures of EPA Method 22. During the VE observations, the kiln must be operating under normal conditions. If VE are observed, you must promptly initiate and complete corrective actions according to your OM&M plan. If no VE are observed in 30 consecutive daily EPA Method 22 tests, you may decrease the frequency of EPA Method 22 testing from daily to weekly for that kiln stack. If VE are observed during any weekly test, you must promptly initiate and complete corrective actions according to your OM&M plan and you must resume EPA Method 22 testing of that kiln stack on a daily basis until no VE are observed in 30 consecutive daily tests, at which time you may again decrease the frequency of EPA Method 22 testing to a weekly basis.

For WS, you are required 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 final 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 are 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) if applicable, 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, periods of startup, shutdown, or malfunction, when actions consistent with your approved SSMP were taken, and periods of routine control device maintenance for facilities obtaining a routine control device maintenance exemption. In addition, if you undertake an action that is inconsistent with your approved SSMP, then you are 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 unless you have made alternative arrangements with the permitting authority.

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 are required to keep a copy of each notification and report, along with supporting documentation. You are 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) if a bag leak detection system is used, 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) if VE measurements are taken, records of VE observations; (6) 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; (7) records of routine control device maintenance for facilities obtaining a routine control device maintenance exemption, including a copy of the approved request for a routine control device maintenance exemption; (8) records of production rate; (9) records for any approved alternative monitoring or test procedures; and (10) current copies of your SSMP and OM&M plan, including any revisions, with records documenting conformance.

IV. Summary of Environmental, Energy, and Economic Impacts for the Final 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 6,000 Mg/yr (6,600 tpy). Under today's final rule, it is assumed that DLA will be installed on 89 tunnel kilns with production capacities equal to or greater than 9.07 Mg (10 tph)(that currently are not controlled with a DLA, DIFF, DLS/FF, or WS). This will result in an estimated reduction in nationwide HAP emissions of 2,100 Mg/yr (2,300 tpy).

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 3,500 Mg/yr (3,900 tpy), 2,400 Mg/yr (2,600 tpy), and 24 Mg/yr (26 tpy), respectively. Implementation of today's final rule is estimated to reduce nationwide HF emissions from existing tunnel kilns by about 1,700 Mg/yr (1,900 tpy), and HCl will be reduced by 350 Mg/yr (390 tpy). Emissions of HAP metals are estimated to be reduced by 5.4 Mg/yr (5.9 tpy). Implementation of today's final rule also is estimated to reduce PM and SO_2 emissions by 740 Mg/yr (820 tpy) and 2,500 Mg/yr (2,800 tpy), respectively.

To project air quality impacts for new sources, we assumed that two large model tunnel kilns (each with a 13.6 Mg/hr (15 tph) capacity and equipped with DIFF) and one medium model tunnel kiln (with an 8.2 Mg/hr (9 tph) capacity and equipped with a DLA), will begin operation at the beginning of the first year following promulgation. We estimate that by implementing today's final rule, HF emissions from new sources will be reduced by 87 Mg/yr (96 tpy), HCl emissions will be reduced by 47 Mg/yr (52 tpy), and HAP metals emissions will be reduced by 0.48 Mg/yr (0.53 tpy). We also estimate that PM and SO_2 emissions from the new kilns will be reduced by 67 Mg/yr (74 tpy) and 170 Mg/yr (190 tpy), respectively.

Secondary air impacts associated with today's final 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 11 Mg/yr (12 tpy) of nitrogen oxides (NO_X) emissions in the first year following compliance with today's final rule. The electricity is assumed to be generated by natural gas-fired turbines.

B. What Are the Water and Solid Waste Impacts?

Because compliance with today's final rule is based on the use of DLA or DIFF, no water pollution impacts are estimated. However, facilities with available wastewater disposal options may choose to use wet scrubbers. Based on available information, each scrubber-controlled kiln could generate 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 disposal impacts that result from the use of DLA include the disposal of the spent limestone that is discharged from the DLA. We calculated the solid waste by taking the difference between the amount of limestone charged into the DLA and the amount of reacted limestone and then adding the amount of reaction products and PM captured. Implementation of today's final rule is estimated to increase solid waste from existing sources by 65,200 Mg/yr (71,900 tpy).

To project solid waste impacts for new sources, we assumed that two large model tunnel kilns (equipped with DIFF) and one medium model tunnel kiln (equipped with a DLA) will begin operation at the beginning of the first year following promulgation of the final rule. The analysis of solid waste from DLA is discussed in the previous paragraph. 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 then adding the amount of reaction products and PM captured. 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. We estimate that implementing today's final rule will result in the generation of 1,410 Mg/yr (1,550 tpy) of solid waste from new sources.

C. What Are the Energy Impacts?

Energy impacts consist of the electricity needed to operate the APCD. Electricity requirements are driven primarily by the size of the fan needed in the APCD. We estimate the increase in electricity consumption that will result from implementation of the final rule to be 89 terajoules per year (84 billion British thermal units (Btu) per year) for existing sources.

To project energy impacts for new sources, we assumed that two large model tunnel kilns (equipped with DIFF) and one medium model tunnel kiln (equipped with a DLA) will begin operation at the beginning of the first year following promulgation of the final rule. We estimate the increase in energy consumption that will result from implementation of today's final rule to be 7.8 terajoules per year (7.4 billion Btu per year) for new sources.

D. Are There Any Additional Environmental and Health Impacts?

Reducing HAP emissions under today's final rule will lower occupational HAP exposure levels. The operation of APCD may increase occupational noise levels.

E. What Are the Cost Impacts?

For existing sources, nationwide total capital costs to implement today's final rule are estimated at $63 million, with total annualized costs of $24 million. The capital costs include the purchase and installation of DLA and monitoring equipment on 89 existing large tunnel kilns. 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 89 DLA, as well as the monitoring, recordkeeping and reporting, and emission testing costs on 20 additional APCD that currently are installed on existing large tunnel kilns.

To project costs for new sources, we assumed that two large model tunnel kilns (equipped with DIFF) and one medium model tunnel kiln (equipped with a DLA) will begin operation at the beginning of the first year following promulgation of the final rule. We estimate the capital costs associated with implementation of today's final rule to be $2.8 million for these three new sources. We estimate the annualized costs associated with implementation of today's final rule to be $1.14 million per year for new sources in the first year following promulgation of the rule.

We calculated the cost estimates using cost algorithms that are based on procedures from EPA's Office of Air Quality Planning and Standards (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.

F. What Are the Economic Impacts?

We conducted a detailed economic impact analysis to determine the market- and industry-level impacts associated with today's final rule. The compliance costs of today's final 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 just less than 1 percent and project no change in price for structural clay products. Domestic production of brick is expected to decline by close to 1 percent. In addition, foreign brick imports are estimated to increase while exports decrease, both by just under 1 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 10 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, today's final rule would create both positive and negative financial impacts on facilities within the BSCP manufacturing industry. The majority of facilities, almost 71 percent, are expected to experience profit increases with today's final rule; however, there are some facilities projected to lose profits (about 29 percent). Furthermore, the economic impact analysis indicates that of the 189 BSCP manufacturing facilities, two brick facilities are at risk of closure because of today's final rule, while none of the structural clay products facilities are at risk to close.

Based on the market analysis, the annual social costs of today's final rule are projected to be $23.3 million. This differs from the annual engineering costs of today's final 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 today's final rule are confined to the brick industry. The consumers of brick are expected to incur $14.7 million in costs associated with today's final rule, with domestic consumers bearing $14.6 million and foreign consumers bearing $0.07 million. Brick producers, in aggregate, are expected to bear the remaining $8.6 million annually in costs. Domestic producers incur $8.67 million while foreign producers gain $0.04 million annually.

We estimate that 15 new kilns will be built during the 5 years after promulgation of today's final rule. The total compliance costs associated with these kilns are projected to be less than 0.6 percent of the industry's value of shipments. The economic impact analysis estimated the impact of today's final 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 today's final rule.

V. Summary of Responses to Major Comments and Changes to the Clay Ceramics Manufacturing Proposed NESHAP

In response to the public comments received on the proposed clay ceramics rule, we made several changes in developing today's final clay ceramics rule. The major comments and our responses and rule changes are summarized in the following sections. A more detailed summary can be found in the Response-to-Comments document, which is available from several sources (see **SUPPLEMENTARY INFORMATION** section).

A. Affected Source

1. Subcategories of Clay Ceramics Kilns

We proposed two subcategories of clay ceramics kilns: Continuous (tunnel or roller) kilns and batch (periodic) kilns. Based on the public comments received regarding APCD applicability, as described in section V.C of this preamble, we revised the subcategorization structure for today's final rule. Today's final rule is based on

four subcategories of clay ceramics kilns: Ceramic tile or sanitaryware tunnel kilns with design capacities less than 9.07 Mg/hr (10 tph) of fired product, ceramic tile or sanitaryware tunnel kilns with design capacities equal to or greater than 9.07 Mg/hr (10 tph) of fired product, ceramic tile roller kilns, and periodic kilns.

2. R&D Kiln Definition

One commenter requested that we change the definition of research and development kiln so that it is consistent with the definition of R&D in section 112(c)(7) of the CAA and most other NESHAP. Therefore, today's final rule includes a revised definition of research and development kiln that is consistent with section 112(c)(7) of the CAA and other NESHAP.

3. Facilities Co-Located With Major Sources

Commenters indicated that considering a clay ceramics facility a major source because it is co-located with a major source (under a separate NESHAP) puts those facilities at a competitive disadvantage with competitors operating facilities that are not co-located. We understand these commenters' concerns. However, section 112 of the CAA requires us to regulate HAP emissions from all major source facilities, regardless of the processes or operations that make those facilities major sources. Thus, today's final rule applies for both co-located and stand-alone clay ceramics manufacturing facilities that are major sources.

B. Existing Source MACT

Four commenters concurred with the existing MACT floor of ''no emissions reductions'' for existing clay ceramics sources. To the contrary, one commenter charged that EPA has simply set MACT floors based on control technology type and that EPA did not identify the relevant best performers and set floors reflecting their average emission level. The commenter noted that factors other than control device type affect emissions and that EPA must consider all non-negligible factors in setting MACT floors and considering beyond-the-floor measures. The commenter stated that if EPA believes it is unworkable to consider all factors, then perhaps EPA should base standards on actual emissions data which reflects all the factors influencing a source's performance.

We reevaluated our existing source MACT determinations following proposal based on consideration of factors other than APCD type. We agree that factors other than APCD type (*e.g.*, kiln design, fuel type, raw materials, additives and surface coatings) can affect emissions from clay ceramics kilns. We acknowledged the effect of kiln design on emissions by creating separate subcategories for periodic, roller, and tunnel kilns. We maintain that low-HAP raw material use is not a viable MACT option because, similar to the BSCP industry, all facilities use product-specific raw materials that are integral to the various products. Changes in raw materials would change the end products, and because of this, it would not be feasible for facilities to meet requirements based on the use of low-HAP raw materials. With respect to requiring kilns to fire low-HAP fuels, all clay ceramics kilns for which we have information are fired with natural gas or propane. Therefore, we are not concerned that a requirement to use natural gas (or equivalent fuel) to fire all existing kilns would have any impact on the end products of existing kilns, as would be the case in the BSCP industry. Therefore, the MACT floor for all existing clay ceramics periodic kilns, tunnel kilns, and roller kilns is based on firing the kilns with natural gas or an equivalent fuel (such as propane or other clean-burning fuel), and we added a work practice standard to the final rule that covers this requirement. We considered developing emission limitations based on firing natural gas, but the available data are insufficient for us to determine the contribution of kiln fuel to HAP emissions, and we believe that a work practice standard is the only feasible means of addressing the commenter's concern that we did not consider options besides APCD use.

C. New Source MACT

At proposal, we concluded that MACT for new and reconstructed periodic kilns was ''no emissions reductions.'' We concluded that MACT for new and reconstructed tunnel and roller kilns was the level of control achievable with a DIFF, DLS/FF, or WS because the best-controlled similar source (a BSCP tunnel kiln) had this level of control.

Following proposal, several commenters argued that clay ceramics kilns are different from BSCP kilns, and that EPA should not consider BSCP tunnel kilns to be the best-controlled similar source. The commenters noted that clay ceramics kilns typically have much lower throughput than BSCP kilns and that the exhaust from clay ceramics kilns contains lower pollutant concentrations than BSCP kiln exhaust. Commenters stated that the lower pollutant concentrations in clay ceramics kiln exhaust would result in the inability to achieve high removal efficiencies. The commenters suggested that the proposed control technologies are not transferable to clay ceramics kilns and noted that none of the technologies are currently in use on domestic clay ceramics kilns. The commenters suggested that the best-controlled similar source should come from the sources in the clay ceramics source category, which would result in a new source MACT floor of ''no emissions reductions'' for clay ceramics kilns.

One commenter stated that, whereas brick products are fired unglazed, most sanitaryware products have a ceramic glaze applied before firing, which melts in the kiln, evenly covering the surface of the piece, helping to seal the surface and hinder the emission of by-products typically associated with the clay raw material.

One commenter suggested that MACT for new clay ceramics kilns be applied only to large kilns (*i.e.*, kilns with a design capacity equal to or greater than 9.07 Mg/hr (10 tph) of fired product). The commenter suggested (based on their conversation with an APCD vendor) that DIFF systems may not be readily available for small (less than 9.07 Mg/hr (10 tph)) clay ceramics kilns.

One commenter requested that EPA distinguish between ceramic tile tunnel and roller kilns. The commenter stated that the two major design differences between BSCP periodic and new BSCP tunnel kilns are the same dissimilarities exhibited between clay ceramics tunnel and roller kilns. The commenter also provided reasons why clay ceramics roller kilns are different from BSCP tunnel kilns. The commenter stated that BSCP tunnel kilns are made of brick lined with refractory materials, have a high profile (tall) design, and require setting and stacking product on rail cars which move on floor rails. Bricks are fired on a 15 to 24 hour cycle. Ceramic tile roller kilns are designed in modular units with a low (short) profile (which affects the excess airflow), have different firing curves and flow characteristics, process a single row of tile moved by roller, and utilize high velocity burners for turbulent airflow. The tiles are not stacked and are fired on a 40 to 60 minute cycle. The commenter stated that firing time has a significant effect on the evolution of HF emissions (roller kilns exhibit significantly lower HF emissions) and provided detail of firing curves/emission estimates for the two types of kilns. In addition, the commenter stated that APCD available for BSCP tunnel

kilns are not readily available for roller kilns.

We acknowledge that the control technologies (DIFF, DLS/FF, and WS) that formed the basis for the proposed emission limits for new and reconstructed clay ceramics kilns are not currently in use on any domestic clay ceramics kiln. However, section 112(d) of the CAA requires us to establish emission limits for new sources based on the performance of the best-controlled similar source. The CAA does not specify that the similar source must be within the same source category. To the contrary, our interpretation of section 112(d) of the CAA is that we are obligated to consider similar sources from other source categories in determining the best-controlled similar source for establishing MACT for new sources.

We have reevaluated our subcategory and best-controlled similar source determinations for new and reconstructed clay ceramics kilns. We maintain that MACT for new and reconstructed periodic kilns does not require use of add-on APCD because the best-controlled similar source is uncontrolled. In addition, based on the comments received and other information, we have concluded that there are significant differences between clay ceramics tunnel kilns and roller kilns. We believe that differences in the operation of BSCP tunnel kilns and tile roller kilns, particularly with respect to the duration of firing, result in emission characteristics that are likely to be very dissimilar. As a result, we cannot assume that APCD that have been demonstrated to be effective for reducing HF and HCl emissions from BSCP tunnel kilns are feasible for tile roller kilns. Therefore, we have concluded that BSCP tunnel kilns cannot be considered similar sources to tile roller kilns, and we have determined that MACT for new and reconstructed clay ceramics tile roller kilns does not include control with an add-on APCD.

We disagree that there are technological differences between clay ceramics tunnel kilns and BSCP tunnel kilns. Some tunnel kilns actually produce both ceramic tile and structural clay tile (a structural clay product). Regarding the effect of glazing on emissions, we cannot refute that the glazes applied to sanitaryware form a seal that could prevent further release of certain pollutants from the body of the ware. However, we have no information that indicates that the sealing becomes effective before HF and HCl are released. To the contrary, we have data from several tests on sanitaryware kilns that quantify HF emissions, and the tests indicate that uncontrolled emissions are within the range emitted from BSCP kilns.

We maintain that the best-controlled similar source for a clay ceramics tunnel kiln is a BSCP tunnel kiln. As discussed in section II.D of this preamble, MACT for new and reconstructed BSCP tunnel kilns with design capacities less than 9.07 Mg/hr (10 tph) of fired product is based on use of a DLA, while MACT for new and reconstructed BSCP tunnel kilns with design capacities equal to or greater than 9.07 Mg/hr (10 tph) of fired product is based on use of DIFF, DLS/FF, or WS. Thus, we have adopted the same requirements for new and reconstructed clay ceramics tunnel kilns. New and reconstructed clay ceramics tile and sanitaryware tunnel kilns with design capacities less than 9.07 Mg/hr (10 tph) of fired product will be required to meet emission limits based on the levels of control that can be achieved by a kiln controlled with a DLA. The emission limits for HF are 0.029 kg/Mg (0.057 lb/ton) or at least 90 percent reduction. For HCl, the emission limits are 0.13 kg/Mg (0.26 lb/ton) or at least 30 percent reduction. For PM, which is used as a surrogate for HAP metals, the emission limit is 0.21 kg/Mg (0.42 lb/ton). For new and reconstructed clay ceramics tile and sanitaryware tunnel kilns with design capacities equal to or greater than 9.07 Mg/hr (10 tph) of fired product, we have revised the emission limits (based on the levels of control that can be achieved by a kiln controlled with a DIFF, DLS/FF, or WS) to reflect new data that were considered in the development of the final BSCP rule, as discussed in section II.F of this preamble. The revised HF emission limits are 0.029 kg/Mg (0.057 lb/ton) or at least 90 percent reduction. The revised HCl emission limits are 0.028 kg/Mg (0.056 lb/ton) or at least 85 percent reduction. The PM emission limit remains unchanged (from proposal) at 0.060 kg/Mg (0.12 lb/ton).

Similar to the requirements for existing sources, we added a work practice standard that requires facilities to use natural gas, or an equivalent fuel, to fire all new or reconstructed clay ceramics periodic kilns, tunnel kilns, and roller kilns, except during periods of natural gas curtailment or other periods when natural gas is not available.

Similar to the requirements for BSCP tunnel kilns, two types of clay ceramics tunnel kilns that would otherwise be considered reconstructed do not meet the definition of reconstruction in 40 CFR 63.2. We have added language in 40 CFR 63.8450(f) to provide that it is not technologically and economically feasible for these two types of existing kilns that would otherwise meet the criteria for reconstruction under 40 CFR 63.2 to meet the relevant standards—*i.e.*, new source MACT. The two types of kilns are existing tunnel kilns with design capacities less than 9.07 Mg/hr (10 tph) of fired product whose design capacities are increased such that they are equal to or greater than 9.07 Mg/hr (10 tph) of fired product, and existing DLA-controlled tunnel kilns with design capacities equal to or greater than 9.07 Mg/hr (10 tph) of fired product. These sources will be required to meet emission limits based on the levels of control that can be achieved by a kiln controlled with a DLA. They also will be subject to the work practice standard that requires facilities to use natural gas, or an equivalent fuel, to fire all kilns, except during periods of natural gas curtailment or other periods when natural gas is not available.

We acknowledge that the higher airflow rates that are characteristic of clay ceramics kilns result in lower pollutant concentrations in the exhaust stream, and that control efficiency limits (or percentage reduction limits) are more difficult to achieve when exhaust gas concentrations are lower. For that reason, we proposed and are promulgating today production-based mass emission limits as alternatives to the HF and HCl percentage reduction limits. Exhaust gas concentrations have no effect on mass emission rates, provided the concentrations are above the test method detection limit. The mass emission rate (*e.g.*, pounds of pollutant emitted per hour) for a source is unchanged regardless of how much dilution air is introduced. Therefore, even though a clay ceramics kiln with a diluted exhaust stream may not be able to meet the percentage HF and HCl reduction limits, the available data indicate that a kiln that is controlled to the new source MACT level will be able to meet the production-based emission limits for HF and HCl, as well as the production-based limit for PM.

D. Cost and Economic Impacts

Several commenters stated that EPA underestimated the cost per ton of pollutant removed at proposal. In general, the commenters felt the costs were unreasonable. Commenters questioned the public health benefits of the proposed clay ceramics rule.

One commenter stated that EPA entirely misunderstood the economic state of the ceramic tile industry in the U.S., and therefore, grossly underestimated the economic impact of

the proposed rule on the industry. The commenter challenged the assumptions presented in the algorithms on which the cost analysis is based, charging that they bear no reasonable relationship to reality in the industry and that the APCD strategies are not actually feasible for implementation. The commenter also argued that the economic analysis of the MACT floor for reconstructed and new ceramic clay roller kilns does not support DIFF-, DLS/FF- or WS-based controls.

We acknowledge the commenters' statements about the high cost effectiveness of the proposed rule. As discussed previously, we have revised the rule, as proposed, such that it is now less costly. Under today's final rule, new clay ceramic roller kilns will not be subject to emission limits. In addition, we have subcategorized clay ceramics tunnel kilns by design capacity. New and reconstructed tunnel kilns with design capacities less than 9.07 Mg/hr (10 tph) of fired product and tunnel kilns that would be considered reconstructed but for 40 CFR 63.8540(f)(1) or 40 CFR 63.8540(f)(2) will be required to meet emission limits based on the levels of control that can be achieved by a DLA. In addition to the changes mentioned above, we have added a work practice standard that requires facilities to use natural gas, or an equivalent fuel, to fire all clay ceramics kilns, except during periods of natural gas curtailment or other periods when natural gas is not available. The costs associated with this change are minimal. Based on these changes, there will be no control cost for new roller kilns and the control cost for new and reconstructed tunnel kilns with design capacities less than 9.07 Mg/hr (10 tph) of fired product and tunnel kilns that would be considered reconstructed but for 40 CFR 63.8540(f)(1) or 40 CFR 63.8540(f)(2) will be lower than at proposal. Most of the new tunnel kilns constructed will likely be in this smaller size category. New clay ceramics tunnel kilns with design capacities equal to or greater than 9.07 Mg/hr (10 tph) are still required to meet emission limits based on the use of DIFF, DLS/FF or WS technologies. However, the HF and HCl emission limits are slightly less stringent than at proposal (due to the inclusion of new test data). The PM emission limit for new clay ceramics tunnel kilns with design capacities equal to or greater than 9.07 Mg/hr (10 tph) is unchanged from the proposed requirements for all new kilns.

Public health benefits are likely to be realized due to the reduced emissions and reduced exposures to emissions as a result of today's final rule. However, we have not quantified these public health benefits because we are not required to do so under the CAA.

We disagree with the commenter's statement that the economic impacts of the rule on the ceramic tile industry have been grossly underestimated. Based on revisions to the final rule as described above, we expect minimal impacts on existing sources, based on recordkeeping and reporting costs associated with the work practice standard for existing kilns, and we estimate that only one new source will be impacted by the final rule in the first five years following promulgation. Therefore, the EIA at proposal overestimated the impacts on the industry. Thus, it is very unlikely that the one new source affected by the rule or the addition of a work practice standard that requires all kilns to be fired with natural gas (or equivalent fuel) will be able to influence industry prices or foreign competition.

E. Test Data and Emission Limits

One commenter implied that there are no data to suggest that HCl is emitted from ceramic tile kilns. Another commenter stated that limits for HCl and PM are irrelevant and that we should only set an emission limit for HF (the largest single HAP emitted from the kilns). The commenter believes that there is no need to establish an emission limitation for HCl or PM because any control system designed to achieve the required HF reduction will also reduce HCl and PM. One commenter disagreed that PM is an adequate surrogate for HAP metals emissions.

We are required by section 112(d) of the CAA to establish emission limits for listed HAP emitted from major sources. Section 112(b) of the CAA lists HCl and various HAP metals. We believe that PM is an adequate surrogate for HAP metals for the reasons discussed in section II.F of this preamble.

We acknowledge that we have no test data that demonstrate that HCl is emitted from clay ceramics kilns. However, we do have data that show that chlorides are present in many clay materials, and that HCl is emitted from various types of clays when heated above a minimum temperature. The data include raw material analyses and emission test reports of HCl emissions for the BSCP manufacturing, lightweight aggregate manufacturing, and kaolin processing industries. Because of the similarities in raw materials used in those industries and the raw materials used to manufacture clay ceramics, we assume that clay ceramics kilns also emit HCl.

We agree that HF emission rates from clay ceramics kilns generally are greater than the corresponding emission rates for HCl or metal HAP. We also agree that emission controls that are used to meet the emission limits for HF are likely to reduce emissions of HCl and SO_x as well. However, as stated previously, the CAA requires us to set emission limits for all listed HAP based on MACT. The data indicated that there are existing controls on similar sources that achieve significant reductions in emissions of HCl and PM (as a surrogate for metal HAP). Therefore, we are required to establish emission limits for HCl and metal HAP. We also note that, if HCl and PM emissions from any affected source are negligible or are automatically controlled by HF control devices, complying with the HCl and PM emission limits should not present a problem.

F. Monitoring Requirements

1. Fabric Filter Inlet Temperature

Two commenters disagreed with the proposed fabric filter inlet temperature monitoring requirement. One commenter stated that control systems using hydrated lime are generally known to have increased HCl and HF removal when temperatures increase. The other commenter suggested that the only limit on fabric filter inlet temperature should be based on manufacturer's specifications for protection of the equipment.

We have eliminated the requirement for monitoring fabric filter inlet temperatures on affected kilns that are controlled with a DLS/FF or DIFF. We believe that the other monitoring requirements (*e.g.*, lime feed rate monitoring and periodic VE checks) that we have incorporated into today's final rule are adequate for ensuring continuous compliance with the emission limits.

2. Bag Leak Detection Systems and Visible Emissions

One commenter suggested changes to the amount of bag leak detector alarm time that must be recorded. We have not changed the requirements for recording bag leak detection system downtime. However, we have incorporated into today's final rule an option for owners and operators of affected kilns that are controlled with a DLS/FF, or DIFF to perform daily VE checks rather than using bag leak detection systems. Visible emissions checks are required for DLA-controlled kilns. Today's final rule also includes a provision for decreasing the frequency of VE checks provided no VE are observed.

3. Continuous Emissions Monitoring Systems

In the preamble to the proposed rule, we requested comment on requiring the application of PM CEMS as a method to assure continuous compliance with the proposed PM emission limits. Commenters opposed use of CEMS when less expensive, but effective, parametric monitoring alternatives are available. Therefore, today's final rule does not require use of PM CEMS or any other type of CEMS. We believe that the parameter monitoring requirements specified in the final rule are adequate for ensuring continuous compliance.

4. Test Methods

One commenter requested that the final clay ceramics rule provide facilities with the option to use either EPA Method 26A or EPA Method 320 for all required stack testing for HF emissions, HCl emissions, or both. Because EPA Method 320 will provide accurate HF and HCl measurements, we have modified today's final clay ceramics rule to include EPA Method 320 as an alternative to EPA Method 26A.

G. Startup, Shutdown, and Malfunction

1. Bypass

One commenter requested that EPA allow for use of the bypass stack during periods of APCD maintenance. Similar comments were received on the proposed BSCP rule. Therefore, today's final clay ceramics rule allows for bypass of the APCD during periods of routine control device maintenance for up to 4 percent of the annual kiln operating hours. Section II.H of this preamble presents details on use of this routine control device maintenance exemption.

2. Initial Startup

Commenters on both the proposed BSCP rule and clay ceramics rule pointed out that it is impractical to meet emission standards during initial startup of a tunnel kiln. Thus, as discussed in section II.H of this preamble, we have added a definition of initial startup to today's final clay ceramics rule to address the concerns expressed by the commenters.

VI. Summary of the Final Clay Ceramics Manufacturing NESHAP

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

Today's final 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 today's final 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-two 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. Periodic kilns are usually used at smaller facilities or are used primarily for second-firing a product after a glaze has been applied.

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.

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 emission from kilns, although the industry's emissions are minimized because the kilns fire clean-burning fuels. 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, include each existing, new, or reconstructed periodic kiln, tunnel kiln, and roller kiln. Each tunnel kiln that meets the description in 40 CFR 63.8540(f)(1) or 40 CFR 63.8540(f)(2) also is an affected source. All affected sources are subject to the work practice standard in today's final rule. In addition, today's final rule contains different emission limits, based on design capacity, for new and reconstructed tunnel kilns, and also includes emission limits for tunnel kilns that would otherwise meet the criteria for reconstruction but for 40 CFR 63.8540(f)(1) or 40 CFR 63.8540(f)(2). The tunnel kiln subcategories are tunnel kilns with design capacities less than 9.07 Mg/hr (10 tph) of fired product and tunnel kilns with design capacities equal to or greater than 9.07 Mg/hr (10 tph) of fired product. Kilns that are used exclusively for R&D and not used to manufacture products for commercial sale, except in a *de minimis* manner, are not subject to the requirements of today's final 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 final rule.

A source is a new affected source if construction began on or after July 22, 2002. An affected source is reconstructed if the criteria defined in 40 CFR 63.2 are met, as qualified by 40 CFR 63.8540(f). An affected source is existing if it is not new or reconstructed and does not meet the descriptions in 40 CFR 63.8540(f). As indicated, affected sources described in 40 CFR 63.8540(f) also are subject to today's final rule.

C. When Must I Comply With the Final Rule?

New and reconstructed affected sources and affected sources that would be considered reconstructed but for 40 CFR 63.8540(f)(1) or 40 CFR 63.8540(f)(2) with an initial startup before May 16, 2003 must comply no later than May 16, 2003. New and reconstructed affected sources and affected sources that would be considered reconstructed but for 40 CFR 63.8540(f)(1) or 40 CFR 63.8540(f)(2) with an initial startup after May 16, 2003 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.

If you have an existing affected source, you must comply with the work practice standards within 3 years of May 16, 2003.

D. What Are the Emission Limits?

Today's final 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 final rule includes HF, HCl, and PM emission limits for new and reconstructed affected sources at clay ceramics manufacturing facilities, as well as for the following affected sources that would be considered reconstructed but for 40 CFR 63.8540(f): Existing tunnel kilns with design capacities less than 9.07 Mg/hr (10 tph) of fired product whose design capacities are increased such that they are equal to or greater than 9.07 Mg/hr (10 tph) of fired product, and existing DLA-controlled tunnel kilns with design capacities equal to or greater than 9.07 Mg/hr (10 tph) of fired product.

If you own or operate a new or reconstructed tunnel kiln with a design capacity less than 9.07 Mg/hr (10 tph) of fired product or a tunnel kiln that would be considered reconstructed but for 40 CFR 63.8540(f)(1) or 40 CFR 63.8540(f)(2), you are required to meet an HF emission limit of 0.029 kg/Mg (0.057 lb/ton) of fired product or reduce uncontrolled HF emissions by at least 90 percent. You also are required to meet an HCl emission limit of 0.13 kg/Mg (0.26 lb/ton) of fired product or reduce uncontrolled HCl emissions by at least 30 percent. Finally, you are required to meet a PM emission limit of 0.21 kg/Mg (0.42 lb/ton) of fired product.

If you own or operate a new or reconstructed tunnel kiln with a design capacity equal to or greater than 9.07 Mg/hr (10 tph) of fired product, you are required to meet an HF emission limit of 0.029 kg/Mg (0.057 lb/ton) of fired product or reduce uncontrolled HF emissions by at least 90 percent. You also are required to meet an HCl emission limit of 0.028 kg/Mg (0.056 lb/ton) of fired product or reduce uncontrolled HCl emissions by at least 85 percent. Finally, you are required to meet a PM emission limit of 0.06 kg/Mg (0.12 lb/ton) of fired product.

E. What Are the Operating Limits?

The operating limits for new and reconstructed clay ceramics tunnel kilns and tunnel kilns that would be considered reconstructed but for 40 CFR 63.8540(f)(1) or 40 CFR 63.8540(f)(2) are the same as those for new and reconstructed BSCP tunnel kilns. These operating limits are presented in section III.E of this preamble.

F. What Are the Work Practice Standards?

If you have an existing, new, or reconstructed clay ceramics periodic kiln, tunnel kiln, or roller kiln, or a tunnel kiln that would be considered reconstructed but for 40 CFR 63.8540(f)(1) or 40 CFR 63.8540(f)(2), you must use natural gas, or an equivalent fuel, as the kiln fuel at all times except during periods of natural gas curtailment or other periods when natural gas is not available.

G. What Are the Performance Test and Initial Compliance Requirements for Sources Subject to Emission Limits?

The performance test and initial compliance requirements for new and reconstructed clay ceramics tunnel kilns and tunnel kilns that would be considered reconstructed but for 40 CFR 63.8540(f)(1) or 40 CFR 63.8540(f)(2) are the same as those for new and reconstructed BSCP tunnel kilns. These requirements are presented in section III.F of this preamble.

H. What Are the Initial Compliance Requirements for Sources Subject to a Work Practice Standard?

For each existing, new, or reconstructed clay ceramics periodic kiln, tunnel kiln, or roller kiln, and each tunnel kiln that would be considered reconstructed but for 40 CFR 63.8540(f)(1) or 40 CFR 63.8540(f)(2), you must indicate, in your initial notification, that you use natural gas, or an equivalent fuel, as the kiln fuel, and certify that such information is true, accurate, and complete.

I. What Are the Continuous Compliance Requirements for Sources Subject to Emission Limits?

The continuous compliance requirements for new and reconstructed clay ceramics tunnel kilns and tunnel kilns that would be considered reconstructed but for 40 CFR 63.8540(f)(1) or 40 CFR 63.8540(f)(2) are the same as those for new and reconstructed BSCP tunnel kilns. These requirements are presented in section III.G of this preamble.

J. What Are the Continuous Compliance Requirements for Sources Subject to a Work Practice Standard?

For each existing, new, or reconstructed clay ceramics periodic kiln, tunnel kiln, or roller kiln, and each tunnel kiln that would be considered reconstructed but for 40 CFR 63.8540(f)(1) or 40 CFR 63.8540(f)(2), you must use natural gas, or an equivalent fuel, as the kiln fuel, and document the type of fuel used. The type of fuel used, along with other compliance information, must be certified as part of your compliance reports. During periods of natural gas curtailment or other periods when natural gas is unavailable, you are allowed to use an alternative fuel. However, if you use an alternative fuel, you must meet the notification requirements specified in 40 CFR 63.8630(g) and the reporting requirements specified in 40 CFR 63.8635(g).

K. What Are the Notification, Recordkeeping, and Reporting Requirements for Sources Subject to Emission Limits?

The notification, recordkeeping, and reporting requirements for new and reconstructed clay ceramics tunnel kilns and tunnel kilns that would be considered reconstructed but for 40 CFR 63.8540(f)(1) or 40 CFR 63.8540(f)(2) are the same as those for new and reconstructed BSCP tunnel kilns. These requirements are presented in section III.H of this preamble.

L. What Are the Notification, Recordkeeping, and Reporting Requirements for Sources Subject to a Work Practice Standard?

If you operate an existing, new, or reconstructed clay ceramics periodic kiln, tunnel kiln, or roller kiln, or a tunnel kiln that would be considered reconstructed but for 40 CFR 63.8540(f)(1) or 40 CFR 63.8540(f)(2), you must submit an initial notification that indicates that you use natural gas, or an equivalent fuel, as the kiln fuel. You must keep records that document your kiln fuel, and if you must use an alternative fuel due to a natural gas curtailment or other interruption of natural gas supply, you must submit a notification of alternative fuel use that includes the information specified in 40 CFR 63.8630(g). You must submit a report of alternative fuel use within 10 working days after terminating the use of the alternative fuel. The report must include the information specified in 40 CFR 63.8635(g).

VII. Summary of Environmental, Energy, and Economic Impacts for the Final Clay Ceramics Manufacturing NESHAP

A. What Are the Air Quality Impacts?

Because the only requirements for existing sources under today's final rule

are work practice standards that we believe that all facilities are already meeting, no air quality impacts are projected for existing sources. To project air quality impacts for new sources, we assumed that one sanitaryware tunnel kiln (3.6 Mg/hr (4 tph) capacity) equipped with a DLA will begin operation at the beginning of the first year following promulgation of the rule. We estimate that by implementing the rule, HF emissions from this new source will be reduced by 4.9 Mg/yr (5.4 tpy), HCl emissions will be reduced by 1.0 Mg/yr (1.1 tpy), and HAP metals emissions will be reduced by 0.028 Mg/yr (0.031 tpy). We also estimate that PM and SO_2 emissions from the new kiln will be reduced by 3.9 Mg/yr (4.3 tpy) and 13 Mg/yr (14 tpy), respectively.

Secondary air impacts associated with today's final clay ceramics rule are direct impacts that result from the operation of any new APCD. The generation of electricity required to operate the control device on the projected new kiln will result in 0.09 tpy of NO_X emissions in the first year following promulgation of the rule. The electricity was assumed to be generated by natural gas-fired turbines.

B. What Are the Water and Solid Waste Impacts?

Because the only requirements for existing sources under today's final rule are work practice standards that we believe that all facilities are already meeting, no water and solid waste impacts are projected for existing sources. Our analyses are based on the use of DLA 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 sanitaryware tunnel kiln equipped with a DLA will begin operation at the beginning of the first year following promulgation of the rule. The solid waste disposal impacts that result from the use of DLA will include the disposal of spent limestone. We calculated the solid waste by taking the difference between the amount of limestone charged into the DLA and the amount of reacted limestone and then adding the amount of reaction products and PM captured. We estimate that implementing the rule will result in the generation of 290 Mg/yr (320 tpy) of solid waste from the new source.

C. What Are the Energy Impacts?

Because the only requirements for existing sources under today's final rule are work practice standards that we believe that all facilities are already meeting, no energy impacts are projected for existing sources. To project energy impacts for new sources, we assumed that one sanitaryware tunnel kiln equipped with a DLA will begin operation at the beginning of the first year following promulgation of the rule. Energy impacts consist of the electricity needed to operate the DLA. 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 to be 710 gigajoules per year (670 million Btu per year).

D. Are There Any Additional Environmental and Health Impacts?

Reducing HAP emissions under today's final rule will lower occupational HAP exposure levels. The operation of APCD may increase occupational noise levels.

E. What Are the Cost Impacts?

Because the only requirements for existing sources under today's final rule are work practice standards that we believe that all facilities are already meeting, cost impacts projected for existing sources are based only on recordkeeping and reporting requirements associated with the work practice standard. These costs are $1,193 per year for each of the eight major source facilities, and the total annual cost to the industry for existing sources is $9,533. To project costs for new sources, we assumed that one sanitaryware tunnel kiln, equipped with a DLA, will be built during the first year following promulgation. We estimate the capital costs associated with implementation of the rule to be $510,000 for new sources. The capital costs include the purchase and installation of DLA and monitoring equipment. We estimate the annualized costs associated with implementation of the rule to be $170,000 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 DLA.

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.

F. What Are the Economic Impacts?

We did not prepare a revised economic impact analysis for the clay ceramics industry because the requirements of the final rule will result in a decrease in cost impacts on the industry. Specifically, new and reconstructed roller kilns, which would have been subject to emission limits in the rule as proposed, are not subject to emission limits in the final rule. In addition, the requirements for clay ceramics tunnel kilns with design capacities less than 9.07 Mg/hr (10 tph) are based on control with a DLA rather than the more costly DIFF, DLS/FF, or WS systems on which the proposed rule was based.

The goal of the economic impact analysis is to estimate the market response of clay ceramics manufacturing producers to today's final rule and to determine the economic effects that may result due to the final rule. Because the MACT floor for existing clay ceramics kilns is based on firing natural gas, or an equivalent fuel, and all clay ceramics kilns for which we have data are fired by natural gas or propane, the compliance costs for existing sources associated with today's final rule consist only of recordkeeping and reporting costs and are minimal. 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 today's final 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 today's final rule.

Unlike existing sources, new and reconstructed tunnel kilns used to produce clay ceramics will face positive compliance costs associated with the installation and operation of APCD. We estimate that one new 3.6 Mg/hr (4 tph) capacity tunnel kiln will be constructed in the sanitaryware industry during the first 5 years after the rule is promulgated. Industry compliance costs associated with this kiln are expected to be less than 0.1 percent of industry value of shipments for the sanitaryware industry. No level of cost-to-sales for sanitaryware kilns could be developed due to the diversity of product types that they produce.

VIII. Statutory and Executive Order Reviews

A. Executive Order 12866, Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), EPA must determine whether the regulatory action

is ''significant'' and, therefore, subject to review by the OMB and the requirements of the Executive Order. The Executive Order defines ''significant regulatory action'' as one that is likely to result in a rule that may:

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

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

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

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

Pursuant to the terms of Executive Order 12866, it has been determined that today's BSCP final rule is a ''significant regulatory action'' because it raises novel legal or policy issues within the meaning of paragraph (4) above. Consequently, today's final BSCP rule was submitted to OMB for review under Executive Order 12866. Any written comments from OMB and written EPA responses are available in the docket (see **ADDRESSES** section of this preamble).

Pursuant to the terms of Executive Order 12866, it has been determined that the clay ceramics final rule does not constitute a ''significant regulatory action'' because it does not meet any of the above criteria. Consequently, today's final clay ceramics rule was not submitted to OMB for review under Executive Order 12866.

B. Paperwork Reduction Act

The information collection requirements in today's final 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 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 Susan Auby by mail at Office of Environmental Information, Collection Strategies Division (2822T), U.S. EPA, 1200 Pennsylvania Avenue, NW, Washington, DC 20460; by e-mail at *auby.susan@epa.gov*; or by calling (202) 566–1672. You may also download a copy off the Internet at *http://www.epa.gov/icr*. The information requirements are not enforceable until OMB approves them.

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

Today's final BSCP rule will 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.

With one exception, today's final clay ceramics rule will not require any notifications or reports beyond those required by the NESHAP General Provisions. The exception applies to affected sources that are subject to limits on the type of fuel used. In such cases, the owner or operator may use an alternative fuel under certain conditions but must submit a notification before using the alternative fuel and must report on alternative fuel use after terminating use of the alternative fuel. 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 today's final BSCP manufacturing rule (averaged over the first 3 years after the effective date of the final rule) is estimated to be 17,471 labor hours per year at a total annual labor cost of $900,328. 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 $115,111, with operation and maintenance costs of $4,853/yr.

The annual monitoring, reporting, and recordkeeping burden for the collection of information required by today's final clay ceramics manufacturing rule (averaged over the first 3 years after the effective date of the final rule) is estimated to be 185 labor hours per year at a total annual labor cost of $9,533. 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 $1,824, with operation and maintenance costs of $358/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. The OMB control numbers for the information collection requirements in the final rules will be listed in an amendment to 40 CFR part 9 in a subsequent **Federal Register** document after OMB approves the ICRs.

C. Regulatory Flexibility Act

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with this action. After considering the economic impacts of today's final rule on small entities in the two source categories, the EPA has determined that this action will not have a significant economic impact on a substantial number of small entities. Although today's final rule will not have a significant economic impact on a substantial number of small entities, we have nonetheless tried to minimize the impact of the final rule on small entities. For both the BSCP manufacturing and clay ceramics

manufacturing source categories, we exercised flexibility in minimizing impacts on small entities through subcategorization of tunnel kilns by size, which still benefits the environment by requiring greater emissions reductions from the larger kilns. 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 rule's regulatory approach, as well as a potential alternative to installing an APCD. Facilities with existing 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 purposes of assessing the impact of today's action on small entities, small entities are 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. The following two sections provide descriptions of the small business assessments for the two categories of sources addressed by today's action.

1. Brick and Structural Clay Products (BSCP) Manufacturing

Small Business Administration size standards for BSCP manufacturing, by NAICS code, are shown in Table 2 of this preamble.

TABLE 2.—SMALL BUSINESS SIZE STANDARDS FOR BSCP MANUFACTURING

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

We have determined that 76 of the 89 companies owning BSCP manufacturing facilities are small businesses. Although small businesses represent 86 percent of the companies within the source category, they are expected to incur about 21 percent of the total industry engineering compliance costs of $24 million. Additionally, 61 of the 76 small businesses will incur no costs. Under the final rule, we estimate that three small firms in this source category may experience an impact less 1 percent of sales, nine small firms in this source category may experience an impact between 1 percent and 3 percent of sales, and 3 small businesses (or 20 percent) 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 0.6 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

Small Business Administration size standards for clay ceramics manufacturing, by NAICS code, are shown in Table 3 of this preamble.

TABLE 3.—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

The EPA identified 13 of the 29 companies owning clay ceramics manufacturing facilities as small businesses. Because the clay ceramics manufacturing final rule does not include emissions limits for existing kilns and includes only a work practice standard that requires that existing kilns are fired with natural gas, a firm's existing kilns will be minimally impacted by the final rule. One new sanitaryware manufacturing source is projected to be constructed in the first five years following promulgation of the rule. Industry compliance costs associated with this source are expected to be less than 0.1 percent of industry value of shipments for the sanitaryware industry segments. 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.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Pub. L. 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 today's final 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 today's final BSCP rule for any 1 year is estimated at $24 million. The total annual cost for today's final clay ceramics rule for any 1 year is estimated at $9,500. Thus, today's final rules are not subject to the requirements of sections 202 and 205 of the UMRA. In addition, the EPA has determined that today's final 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 final rules are not subject to the requirements of section 203 of the UMRA.

E. Executive Order 13132, Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999) requires EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' 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, it 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.

Today's final rules do not have federalism implications. They will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. None of the affected facilities are owned or operated by State governments, and the final rule requirements will not supercede State regulations that are more stringent. Thus, the requirements of Executive Order 13132 do not apply to the final rules.

F. Executive Order 13175, Consultation and Coordination With Indian Tribal Governments

Executive Order 13175 (65 FR 67249, November 6, 2000) requires EPA to develop an accountable process to ensure ''meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.'' ''Policies that have tribal implications'' are defined in the Executive Order to include regulations that have ''substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes.''

Today's final 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 final rules.

G. Executive Order 13045, Protection of Children From Environmental Health & 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 rule. Today's final rules are not subject to Executive Order 13045 because they are based on technology performance and not on health or safety risks.

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

Executive Order 13211 (66 FR 28355, May 22, 2001) provides that agencies shall prepare and submit to the Administrator of the Office of Information and Regulatory Affairs, OMB, a Statement of Energy Effects for certain actions identified as ''significant energy actions.'' Section 4(b) of Executive Order 13211 defines ''significant energy actions'' as ''any action by an agency (normally published in the **Federal Register**) that promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices of inquiry, advance notices of proposed rulemaking, and notices of proposed rulemaking: (1)(i) That is a significant regulatory action under Executive Order 12866 or any successor order, and (ii) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (2) that is designated by the Administrator of the Office of Information and Regulatory Affairs as a significant energy action.'' Today's final clay ceramics manufacturing rule is not subject to Executive Order 13211

because it is not a significant regulatory action under Executive Order 12866. Although today's final BSCP rule is considered to be a significant regulatory action under Executive Order 12866, it is not a ''significant energy action'' because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The basis for the determination is as follows.

Today's final BSCP rule affects manufacturers in the BSCP (NAICS 327121), extruded tile (NAICS 327122), and other structural clay products (NAICS 327123) industries. There is no crude oil, fuel, or coal production from these industries. Hence, there is no direct effect on such energy production related to implementation of the BSCP rule. In fact, as previously mentioned in this preamble, there will be an increase in energy consumption, and hence an increase in energy production, resulting from installation of APCD likely needed for sources to meet the requirements of the final BSCP rule. This increase in energy consumption is equal to approximately 27 million kilowatt-hours/year (kWh/yr) for electricity. The electricity increase is considered negligible, equivalent to 0.0007 percent of 1999 U.S. electricity production.[4] There is no expected increase in natural gas consumption. It should be noted, however, that the estimated decrease in BSCP production resulting from producer's and consumer's reactions to the final BSCP rule will offset this effect on such energy production. It is likely that the output reduction in the industries will lead to less energy use by these industries and thus some reduction in overall energy production.

Given the negligible change in energy consumption resulting from the final BSCP rule, we do not expect any price increase for any energy type. The cost of energy distribution should not be affected by the final BSCP rule at all since the final rule does not affect energy distribution facilities. Finally, with changes in net exports being a minimal percentage of domestic output from the affected industries, there will be only a negligible change in international trade, and hence in dependence on foreign energy supplies. No other adverse outcomes are expected to occur with regards to energy supplies.

Therefore, we conclude that today's final BSCP rule is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

[4] U.S. Department of Energy, Energy Information Administration. Annual Energy Review, End-Use Energy Consumption for 1998. Located on the Internet at *http://www.eia.doe.gov*.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Pub. L. No. 104–113; 15 U.S.C. 272 note) directs 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 OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

The final rules involve technical standards. The EPA cites the following standards in the final rules: EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 4, 5, 22, 26, 26A, and 320 of 40 CFR part 60, appendix A. Consistent with the NTTAA, EPA conducted searches to identify voluntary consensus standards in addition to these EPA methods. No applicable voluntary consensus standards were identified for EPA Methods 1A, 2A, 2D, 2F, 2G, and 22. The search and review results have been documented and are in the dockets for the final rules.

The search for emissions measurement procedures identified 11 voluntary consensus standards. The EPA determined that eight of these 11 standards identified for measuring emissions of the HAPs or surrogates subject to emission standards in the final rules were impractical alternatives to EPA test methods for the purposes of the final rules. Therefore, EPA does not intend to adopt these standards at this time. The reasons for this determination for the 11 methods are discussed in the dockets for the final rules.

Two of the 11 voluntary consensus standards identified in this search were not available at the time the review was conducted for the purposes of the final rules because they are under development by a voluntary consensus body: ASME/BSR MFC 13M, ''Flow Measurement by Velocity Traverse,'' for EPA Method 2 (and possibly 1); and ASME/BSR MFC 12M, ''Flow in Closed Conduits Using Multiport Averaging Pitot Primary Flowmeters,'' for EPA Method 2.

In response to public comments received, we considered and decided to include EPA Method 320 as an option for measuring HF and HCl. The voluntary consensus standard ASTM D6348–98, ''Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform (FTIR) Spectroscopy,'' has been reviewed by the EPA as a potential alternative to EPA Method 320. Suggested revisions to ASTM D6348–98 that would allow the EPA to accept ASTM D6348–98 as an acceptable alternative were sent to ASTM by the EPA. The ASTM Subcommittee D22–03 is currently undertaking a revision of ASTM D6348–98. Because of this, we are not citing this standard as an acceptable alternative for EPA Method 320 in the final rules today. However, upon successful ASTM balloting and demonstration of technical equivalency with the EPA FTIR methods, the revised ASTM standard could be incorporated by reference for EPA regulatory applicability. In the interim, facilities have the option to request ASTM D6348–98 as an alternative test method under 40 CFR 63.7(f) and 40 CFR 63.8(f) on a case-by-case basis.

Table 3 of the final BSCP rule and Table 4 of the final clay ceramics rule list the EPA testing methods included in the rules. Under 40 CFR 63.7(f) and 40 CFR 63.8(f), a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any of the EPA testing methods, performance specifications, or procedures.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing today's final rules and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rules in the **Federal Register**. Neither of today's rules are ''major rules'' as defined by 5 U.S.C. 804(2). The final rules will be effective on May 16, 2003.

List of Subjects in 40 CFR Part 63

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

Dated: February 28, 2003.

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 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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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 (including, but not limited to, face brick, structural brick, and brick pavers); clay pipe; roof tile; extruded floor and wall tile; and/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 existing, new, or reconstructed 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. For the remainder of this subpart, a tunnel kiln with a design capacity equal to or greater than 9.07 Mg/hr (10 tph) of fired product will be called a large tunnel kiln, and a tunnel kiln with a design capacity less than 9.07 Mg/hr (10 tph) of fired product will be called a small tunnel kiln.

(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 ducted 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 ducted 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 small 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 12-month 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, except in a de minimis manner, 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, except as provided in paragraphs (i)(1) and (i)(2) of this section.

(1) It is not technologically and economically feasible for an existing small 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 to meet the relevant standards (*i.e.*, new source maximum achievable control technology (MACT)) by retrofitting with a dry lime injection fabric filter (DIFF), dry lime scrubber/fabric filter (DLS/FF), or wet scrubber (WS).

(2) It is not technologically and economically feasible for an existing large dry limestone adsorber (DLA)-controlled kiln to meet the relevant standards by retrofitting with a DIFF, DLS/FF, or WS.

(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 May 16, 2003, then you must comply with the applicable emission limitations in Tables 1 and 2 to this subpart no later than May 16, 2003.

(2) If the initial startup of your affected source is after May 16, 2003, then you must comply with the applicable emission limitations in Tables 1 and 2 to this subpart upon initial startup of your affected source.

(b) If you have an existing affected source, you must comply with the applicable emission limitations in Tables 1 and 2 to this subpart no later than May 16, 2003.

(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 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 and during periods of routine control device maintenance as specified in paragraph (e) of this section.

(b) Except as specified in paragraph (e) of this section, 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) If you own or operate an affected kiln and must perform routine maintenance on the control device for that kiln, you may bypass the kiln control device and continue operating the kiln upon approval by the Administrator provided you satisfy the conditions listed in paragraphs (e)(1) through (5) of this section.

(1) You must request a routine control device maintenance exemption from the Administrator. Your request must justify the need for the routine maintenance on the control device and the time required to accomplish the maintenance activities, describe the maintenance activities and the frequency of the maintenance activities, explain why the maintenance cannot be accomplished during kiln shutdowns, describe how you plan to minimize emissions to the greatest extent possible during the maintenance, and provide any other documentation required by the Administrator.

(2) The routine control device maintenance exemption must not exceed 4 percent of the annual operating uptime for each kiln.

(3) The request for the routine control device maintenance exemption, if approved by the Administrator, must be incorporated by reference in and attached to the affected source's title V permit.

(4) You must minimize HAP emissions during the period when the kiln is operating and the control device is offline.

(5) You must minimize the time period during which the kiln is operating and the control device is offline.

(f) 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 (13) 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 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.

(13) If you operate an affected kiln and you plan to take the kiln control device out of service for routine maintenance, as specified in § 63.8420(e), the procedures specified in paragraphs (b)(13)(i) and (ii) of this section.

(i) Procedures for minimizing HAP emissions from the kiln during periods of routine maintenance of the kiln control device when the kiln is operating and the control device is offline.

(ii) Procedures for minimizing the duration of any period of routine maintenance on the kiln control device when the kiln is operating and the control device is offline.

(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 the percent reduction HF and HCl emission limits 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, out-of-control periods, or periods of routine control device maintenance covered by a routine control device maintenance exemption as specified in § 63.8420(e)).

(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, out-of-control periods, or periods of routine control device maintenance covered by a routine control device maintenance exemption as specified in § 63.8420(e)).

(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 liquid flow measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (b)(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.

(c) For each pressure measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (c)(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.

(d) For each pH measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (d)(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.

(e) For each bag leak detection system, you must meet the requirements in paragraphs (e)(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 that demonstrates that the fabric filter is in good operating condition. Record each adjustment.

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

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

(g) For each limestone feed system on a DLA, you must meet the requirements in paragraphs (a)(1),(4), and (5) of this section and must ensure on a monthly basis that the feed system replaces limestone at least as frequently as the schedule set during the performance test.

(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, malfunction, and routine control device maintenance as specified in § 63.8420(e) 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. Any averaging period for which you do not have valid monitoring data and such data are required constitutes a deviation from 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, malfunction, and routine control device maintenance. 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 an SSMP that satisfies the requirements of § 63.6(e) 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).

(f) Deviations that occur during periods of control device maintenance covered by an approved routine control device maintenance exemption according to § 63.8420(e) are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the approved routine control device maintenance exemption.

(g) You must demonstrate continuous compliance with the operating limits in Table 2 to this subpart for visible emissions (VE) from tunnel kilns equipped with DLA, DIFF, or DLS/FF by monitoring VE at each kiln stack according to the requirements in paragraphs (g)(1) through (3) of this section.

(1) Perform daily VE observations of each kiln stack according to the procedures of Method 22 of 40 CFR part 60, appendix A. You must conduct the Method 22 test while the affected source is operating under normal conditions. The duration of each Method 22 test must be at least 15 minutes.

(2) If VE are observed during any daily test conducted using Method 22 of 40 CFR part 60, appendix A, you must promptly initiate and complete corrective actions according to your OM&M plan. If no VE are observed in 30 consecutive daily Method 22 tests for any kiln stack, you may decrease the frequency of Method 22 testing from daily to weekly for that kiln stack. If VE are observed during any weekly test, you must promptly initiate and complete corrective actions according to your OM&M plan, resume Method 22 testing of that kiln stack on a daily basis, and maintain that schedule until no VE are observed in 30 consecutive daily tests, at which time you may again decrease the frequency of Method 22 testing to a weekly basis.

(3) If VE are observed during any test conducted using Method 22 of 40 CFR part 60, appendix A, you must report these deviations by following the requirements in § 63.8485.

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 May 16, 2003, you must submit an Initial Notification not later than 120 calendar days after May 16, 2003.

(c) As specified in § 63.9(b)(3), if you start up your new or reconstructed affected source on or after May 16, 2003, 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, if a bag leak detection system is used, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in § 63.8450(e).

(f) If you request a routine control device maintenance exemption according to § 63.8420(e), you must submit your request for the exemption no later than 30 days before the compliance date.

§ 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, 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 (7) 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) A description of control device maintenance performed while the control device was offline and the kiln controlled by the control device was operating, including the information specified in paragraphs (c)(5)(i) through (iii) of this section.

(i) The date and time when the control device was shutdown and restarted.

(ii) Identification of the kiln that was operating and the number of hours that the kiln operated while the control device was offline.

(iii) A statement of whether or not the control device maintenance was included in your approved routine control device maintenance exemption developed as specified in § 63.8420(e). If the control device maintenance was included in your approved routine control device maintenance exemption, then you must report the information in paragraphs (c)(5)(iii)(A) through (C) of this section.

(A) The total amount of time that the kiln controlled by the control device operated during the current semiannual compliance period and during the previous semiannual compliance period.

(B) The amount of time that each kiln controlled by the control device operated while the control device was offline for maintenance covered under the routine control device maintenance exemption during the current semiannual compliance period and during the previous semiannual compliance period.

(C) Based on the information recorded under paragraphs (c)(5)(iii)(A) and (B) of this section, compute the annual percent of kiln operating uptime during which the control device was offline for routine maintenance using Equation 1 of this section.

$$RM = \frac{DT_p + DT_c}{KU_p + KU_c}(100) \qquad \text{(Eq. 1)}$$

Where:

RM=Annual percentage of kiln uptime during which control device was offline for routine control device maintenance

DT_p=Control device downtime claimed under the routine control device maintenance exemption for the previous semiannual compliance period

DT_c=Control device downtime claimed under the routine control device maintenance exemption for the current semiannual compliance period

KU_p=Kiln uptime for the previous semiannual compliance period

KU_c=Kiln uptime for the current semiannual compliance period

(6) 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.

(7) 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 (5) and paragraphs (d)(1) and (2) of this section. This includes periods of startup, shutdown, malfunction, and routine control device maintenance.

(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 (5) and paragraphs (e)(1) through (13) of this section. This includes periods of startup, shutdown, malfunction, and routine control device maintenance.

(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 pertinent 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; during routine control device maintenance covered in your approved routine control device maintenance exemption; 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 were 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 according 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 permitting authority.

§ 63.8490 What records must I keep?

(a) You must keep the records listed in paragraphs (a)(1) through (4) 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).

(4) Records relating to control device maintenance and documentation of your approved routine control device maintenance exemption, if you request such an exemption under § 63.8420(e).

(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 for how long must I keep my records?

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

(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 (including, but not limited to, face brick, structural brick, and brick pavers); clay pipe; roof tile; extruded floor and wall tile; and/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 APCD 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 APCD 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.

Dry limestone adsorber (DLA) means an APCD that includes a limestone storage bin, a reaction chamber that is essentially a packed tower filled with limestone, and may or may not include a peeling drum that mechanically scrapes reacted limestone to regenerate the stone for reuse.

Emission limitation means any emission limit or operating limit.

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

Initial startup means:

(1) For a new or reconstructed tunnel kiln controlled with a DLA, and for a tunnel kiln that would be considered reconstructed but for § 63.8390(i)(1) or § 63.8390(i)(2), the time at which the temperature in the kiln first reaches 260 °C (500 °F) and the kiln contains product; or

(2) For a new or reconstructed tunnel kiln controlled with a DIFF, DLS/FF, or WS, the time at which the kiln first reaches a level of production that is equal to 75 percent of the kiln design capacity or 12 months after the affected source begins firing BSCP, whichever is earlier.

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

Large tunnel kiln means a tunnel kiln (existing, new, or reconstructed) with a design capacity equal to or greater than 9.07 Mg/hr (10 tph) of fired product.

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, except in a de minimis manner.

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

Small tunnel kiln means a tunnel kiln (existing, new, or reconstructed) with a design capacity less than 9.07 Mg/hr (10 tph) of fired product.

Startup means the setting in operation of an affected source and starting the production process.

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 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.

Tunnel kiln design capacity means the maximum amount of brick, in Mg (tons), that a kiln is designed to produce in one year divided by the number of hours in a year (8,760 hours). 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 APCD 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.

Tables to Subpart JJJJJ of Part 63

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 large tunnel kiln (design capacity ≥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 on or after July 22, 2002; each new or reconstructed small tunnel kiln (design capacity <10 tph of fired product), including all process streams; each tunnel kiln that would be considered reconstructed but for § 63.8390(i)(1), including all process streams; and each large tunnel kiln previously equipped with a DLA that would be considered reconstructed but for § 63.8390(i)(2), including all process streams.	a. HF emissions must not exceed 0.029 kilograms per megagram (kg/Mg) (0.057 pounds per ton (lb/ton)) of fired product. b. HCl emissions must not exceed 0.13 kg/Mg (0.26 lb/ton) of fired product. c. PM emissions must not exceed 0.21 kg/Mg (0.42 lb/ton) of fired product.	Reduce uncontrolled HF emissions by at least 90 percent. Reduce uncontrolled HCl emissions by at least 30 percent. Not applicable.
2. New or reconstructed large tunnel kiln, including all process streams.	a. HF emissions must not exceed 0.029 kg/Mg (0.057 lb/ton) of fired product. b. HCl emissions must not exceed 0.028 kg/Mg (0.056 lb/ton) of fired product. c. PM emissions must not exceed 0.060 kg/Mg (0.12 lb/ton) of fired product.	Reduce uncontrolled HF emissions by at least 90 percent. Reduce uncontrolled HCl emissions by at least 85 percent. 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 DLA	a. Maintain the average pressure drop across the DLA for each 3-hour block period at or above the average pressure drop established during the performance test; and b. Maintain an adequate amount of limestone in the limestone hopper, storage bin (located at the top of the DLA), and DLA at all times; maintain the limestone feeder setting at or above the level established during the performance test; and c. Use the same grade of limestone from the same source as was used during the performance test; maintain records of the source and grade of limestone; and d. Maintain no VE from the DLA stack.
2. Kiln equipped with a DIFF or DLS/FF	a. If you use a bag leak detection system, 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; or maintain no VE from the DIFF or DLS/FF stack; and b. 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.
3. Kiln equipped with a 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 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 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; or	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 WS) is present.
		Method 320 of 40 CFR part 63, appendix A.	Conduct the test while operating at the maximum production level. When using Method 320 of 40 CFR part 63, appendix A, you must follow the analyte spiking procedures of section 13 of Method 320 of 40 CFR part 63, appendix A, unless you can demonstrate that the complete spiking procedure has been conducted at a similar source.
	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.*, no. of pushes per hour, no. 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 DLA	a. Establish the operating limit for the average pressure drop across the DLA.	Data from the pressure drop measurement device during the performance test.	You must continuously measure the pressure drop across the DLA, 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.

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

For each . . .	You must . . .	Using . . .	According to the following requirements . . .
	b. Establish the operating limit for the limestone feeder setting.	Data from the limestone feeder during the performance test.	You must ensure that you maintain an adequate amount of limestone in the limestone hopper, storage bin (located at the top of the DLA), and DLA at all times during the performance test. You must establish your limestone feeder setting one week prior to the performance test and maintain the feeder setting for the one-week period that precedes the performance test and during the performance test.
	c. Document the source and grade of limestone used.	Records of limestone purchase.	
4. Kiln equipped with a DIFF or DLS/FF.	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.
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 performace 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. Existing large tunnel kiln (design capacity ≥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; each new or reconstructed small tunnel kiln (design capacity <10 tph of fired product), including all process streams; each tunnel kiln that would be considered reconstructed but for § 63.8390(i)(1), including all process streams; and each large tunnel kiln previously equipped with a DLA that would be considered reconstructed but for § 63.8390(i)(2), including all process streams.	a. HF emissions must not exceed 0.029 kg/Mg (0.057 lb/ton) of fired product; or uncontrolled HF emissions must be reduced by at least 90 percent; and	i. The HF emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test, according to the calculations in § 63.8445(g)(1), do not exceed 0.029 kg/Mg (0.057 lb/ton); or uncontrolled HF emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, 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 HF emissions did not exceed 0.029 kg/Mg (0.057 lb/ton) or uncontrolled HF emissions were reduced by at least 90 percent.
	b. HCl emissions must not exceed 0.13 kg/Mg (0.26 lb/ton) of fired product; or uncontrolled HCl emissions must be reduced by at least 30 percent; and	i. The HCl emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test, according to the calculations in § 63.8445(g)(1), do not exceed 0.13 kg/Mg (0.26 lb/ton); or uncontrolled HCl emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test are reduced by at least 30 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 HCl emissions did not exceed 0.13 kg/Mg (0.26 lb/ton) or uncontrolled HCl emissions were reduced by at least 30 percent.
	c. PM emissions must not exceed 0.21 kg/Mg (0.42 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 0.21 kg/Mg (0.42 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 0.21 kg/Mg (0.42 lb/ton).
2. New or reconstructed large tunnel kiln, including all process streams.	a. HF emissions must not exceed 0.029 kg/Mg (0.057 lb/ton) of fired product; or uncontrolled HF emissions must be reduced by at least 90 percent; and	i. The HF emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test, according to the calculations in § 63.8445(g)(1), do not exceed 0.029 kg/Mg (0.057 lb/ton); or uncontrolled HF emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, 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

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

For each . . .	For the following emission limitation . . .	You have demonstrated initial compliance if . . .
		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 0.029 kg/Mg (0.057 lb/ton) or uncontrolled HF emissions were reduced by at least 90 percent.
	b. HCl emissions must not exceed 0.028 kg/Mg (0.056 lb/ton) of fired product; or uncontrolled HCl emissions must be reduced by at least 85 percent; and	i. The HCl emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test, according to the calculations in §63.8445(g)(1), do not exceed 0.028 kg/Mg (0.056 lb/ton); or uncontrolled HCl emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test are reduced by at least 85 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 HCl emissions did not exceed 0.028 kg/Mg (0.056 lb/ton) or uncontrolled HCl emissions were reduced by at least 85 percent.
	c. PM emissions must not exceed 0.060 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 0.060 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 0.060 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 DLA	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 a DLA.	i. Collecting the DLA pressure drop data according to §63.8450(a); reducing the DLA pressure drop data to 3-hour block averages according to §63.8450(a); maintaining the average pressure drop across the DLA for each 3-hour block period at or above the average pressure drop established during the performance test; and ii. Verifying that the limestone hopper and storage bin (located at the top of the DLA) contain adequate limestone by performing a daily visual check; and iii. Recording the limestone feeder setting daily to verify that the feeder setting is being maintained at or above the level established during the performance test; and iv. Using the same grade of limestone from the same source as was used during the performance test; maintaining records of the source and type of limestone; and v. Performing VE observations of the DLA stack at the frequency specified in §63.8470(g) using Method 22 of 40 CFR part 60, appendix A; maintaining no VE from the DLA stack.

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

For each . . .	For the following emission limits and operating limits . . .	You must demonstrate continuous compliance by . . .
2. Kiln equipped with a DIFF or 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 DIFF or DLS/FF.	i. If you use a bag leak detection system, 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; or performing VE observations of the DIFF or DLS/FF stack at the frequency specified in §63.8470(g) using Method 22 of 40 CFR part 60, appendix A; maintaining no VE from the DIFF or DLS/FF stack; and ii. 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 during each shift of operation to verify that the feeder setting is being maintained at or above the level established during the performance test.
3. Kiln equipped with a WS	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 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 §63.8485, 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 limits, operating limits) 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).

TABLE 6 TO SUBPART JJJJJ 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 § 63.8485(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 through 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	Initial applicability determination; applicability after standard established; permit requirements; extensions, notifications.	Yes.
§ 63.2	Definitions	Definitions for part 63 standards	Yes.
§ 63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes.
§ 63.4	Prohibited Activities	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	Must notify if commenced construction or reconstruction after proposal.	Yes.
§ 63.6(b)(6)	[Reserved].		
§ 63.6(b)(7)	Compliance Dates for New and Reconstructed area Sources That Become Major.	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were 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).	Requirement for startup, shutdown, and malfunction (SSM) and SSMP; content of SSMP.	Yes.
§ 63.6(f)(1)	Compliance Except During SSM	You must comply with emission standards at all times except during SSM.	Yes.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance ..	Compliance based on performance test, operation and maintenance plans, records, inspection.	Yes.
§ 63.6(g)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§ 63.6(h)	Opacity/VE Standards	Requirements for opacity and VE standards	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
§ 63.6(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)	Section 114 Authority	Administrator may require a performance test under CAA section 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	Requirements for testing facilities	Yes.
§ 63.7(e)(1)	Conditions for Conducting Performance Tests.	Performance tests must be conducted under representative conditions.	No, § 63.8445 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	Procedures by which Administrator can grant approval to use an alternative test method.	Yes.
§ 63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; must submit performance test data 60 days after end of test with the notification of compliance status.	Yes.
§ 63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes.
§ 63.8(a)(1)	Applicability of Monitoring Requirements.	Subject to all monitoring requirements in subpart	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	Requirements for flares in § 63.11 apply	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)	CMS Requirements	Requirements for CMS	No, §§ 63.8425 and 63.8465 specify requirements.
§ 63.8(c)(5)	Continuous Opacity Monitoring System (COMS) Minimum Procedures.	COMS minimum procedures	No, not applicable.
§ 63.8(c)(6)	CMS Requirements	Zero and high level calibration check requirements	No, § 63.8425 specifies requirements.
§ 63.8(c)(7)–(8)	CMS Requirements	Out-of-control periods	No, § 63.8425 specifies requirements.
§ 63.8(d)	CMS Quality Control	Requirements for CMS quality control	No, § 63.8425 specifies requirements.
§ 63.8(e)	CMS Performance Evaluation	Requirements for CMS performance evaluation	No, § 63.8425 specifies requirements.
§ 63.8(f)(1)–(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring.	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
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy test for continuous emissions monitoring systems (CEMS).	No, not applicable.
§ 63.8(g)	Data Reduction	COMS and CEMS data reduction requirements	No, not applicable.
§ 63.9(a)	Notification Requirements	Applicability; State delegation	Yes.
§ 63.9(b)	Initial Notifications	Requirements for initial notifications	Yes.
§ 63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed BACT/LAER.	Yes.
§ 63.9(d)	Notification of Special Compliance Requirements for New Source.	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date.	Yes.
§ 63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes.
§ 63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No, not applicable.
§ 63.9(g)(1)	Additional Notifications When Using CMS.	Notification of performance evaluation	Yes.
§ 63.9(g)(2)–(3)	Additional Notifications When Using CMS.	Notification of COMS data use; notification that relative accuracy alternative criterion were exceeded.	No, not applicable.
§ 63.9(h)	Notification of Compliance Status	Contents; submittal requirements	Yes.
§ 63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change in when notifications must be submitted.	Yes.
§ 63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes.
§ 63.10(a)	Recordkeeping/Reporting	Applicability; general information	Yes.
§ 63.10(b)(1)	General Recordkeeping Requirements	General requirements	Yes.
§ 63.10(b)(2)(i)–(v)	Records Related to SSM	Requirements for SSM records	Yes.
§ 63.10(b)(2)(vi)–(xii) and (xiv).	CMS Records	Records when CMS is malfunctioning, inoperative or out-of-control.	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	Additional records for CMS	No, §§ 63.8425 and 63.8490 specify requirements.
§ 63.10(d)(1) and (2).	General Reporting Requirements	Requirements for and reporting; performance test results reporting.	Yes.
§ 63.10(d)(3)	Reporting Opacity or VE Observations	Requirements for reporting opacity and VE	No, not applicable.
§ 63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension.	Yes.
§ 63.10(d)(5)	SSM Reports	Contents and submission	Yes.
§ 63.10(e)(1)–(3)	Additional CMS Reports	Requirements for CMS reporting	No, §§ 63.8425 and 63.8485 specify requirements.
§ 63.10(e)(4)	Reporting COMS data	Requirements for reporting COMS data with performance test data.	No, not applicable.
§ 63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.
§ 63.11	Flares	Requirement for flares	No, not applicable.
§ 63.12	Delegation	State authority to enforce standards	Yes.
§ 63.13	Addresses	Addresses for reports, notifications, requests	Yes.
§ 63.14	Incorporation by Reference	Materials incorporated by reference	Yes.
§ 63.15	Availability of Information	Information availability; confidential 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

63.8530 What is the purpose of this subpart?
63.8535 Am I subject to this subpart?
63.8540 What parts of my plant does this subpart cover?
63.8545 When do I have to comply with this subpart?

Emission Limitations and Work Practice Standards

63.8555 What emission limitations and work practice standards must I meet?
63.8560 What are my options for meeting the emission limitations and work practice standards?

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63.8570 What are my general requirements for complying with this subpart?
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63.8595 How do I conduct performance tests and establish operating limits?
63.8600 What are my monitoring installation, operation, and maintenance requirements?
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63.8615 How do I monitor and collect data to demonstrate continuous compliance?
63.8620 How do I demonstrate continuous compliance with the emission limitations and work practice standards?

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63.8630 What notifications must I submit and when?
63.8635 What reports must I submit and when?
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63.8645 In what form and for how long must I keep my records?

Other Requirements and Information

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63.8660 Who implements and enforces this subpart?
63.8665 What definitions apply to this subpart?

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
Table 3 to Subpart KKKKK of Part 63—Work Practice Standards
Table 4 to Subpart KKKKK of Part 63—Requirements for Performance Tests
Table 5 to Subpart KKKKK of Part 63—Initial Compliance with Emission Limitations and Work Practice Standards
Table 6 to Subpart KKKKK of Part 63—Continuous Compliance with Emission Limitations and Work Practice Standards
Table 7 to Subpart KKKKK of Part 63—Requirements for Reports
Table 8 to Subpart KKKKK of Part 63—Applicability of General Provisions to Subpart KKKKK

What This Subpart Covers

§ 63.8530 What is the purpose of this subpart?

This subpart establishes national emission limitations and work practice standards 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 and work practice standards.

§ 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 existing, new, or reconstructed affected source at a clay ceramics manufacturing facility and to each affected source described in paragraphs (f)(1) or (f)(2) of this section.

(b) Each existing, new, or reconstructed periodic kiln, tunnel kiln, and roller kiln is an affected source regardless of design capacity. Each source that meets the description in paragraphs (f)(1) or (f)(2) also 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, except in a *de minimis* manner, 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, except as provided in paragraphs (f)(1) and (f)(2) of this section.

(1) It is not technologically and economically feasible for an existing tunnel kiln whose design capacity is less than 9.07 megagrams per hour (Mg/hr) (10 tons per hour (tph)) of fired product but is increased such that it is equal to or greater than 9.07 Mg/hr (10 tph) of fired product to meet the relevant standards (*i.e.*, new source maximum achievable control technology (MACT)) by retrofitting with a dry lime injection fabric filter (DIFF), dry lime scrubber/fabric filter (DLS/FF), or wet scrubber (WS).

(2) It is not technologically and economically feasible for an existing dry limestone adsorber (DLA)-controlled kiln whose design capacity is equal to or greater than 9.07 Mg/hr (10 tph) of fired product to meet the relevant standards by retrofitting with a DIFF, DLS/FF, or WS.

(g) An affected source is existing if it is not new or reconstructed and does not meet the descriptions provided in paragraphs (f)(1) and (f)(2) of this section.

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

(a) If you have a new or reconstructed affected source or an affected source described in § 63.8540(f)(1) or § 63.8540(f)(2), 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 May 16, 2003, then you must comply with the applicable emission limitations and work practice standards in Tables 1, 2, and 3 to this subpart no later than May 16, 2003.

(2) If the initial startup of your affected source is after May 16, 2003, then you must comply with the applicable emission limitations and work practice standards in Tables 1, 2, and 3 to this subpart upon initial startup of your affected source.

(b) If you have an existing affected source, you must comply with the work practice standards for existing sources in Table 3 to this subpart no later than May 16, 2003.

(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 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.

(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 § 63.8630 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 and Work Practice Standards

§ 63.8555 What emission limitations and work practice standards 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.

(c) You must meet each work practice standard in Table 3 to this subpart that applies to you.

§ 63.8560 What are my options for meeting the emission limitations and work practice standards?

(a) 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)(1) and (2) of this section.

(1) *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.

(2) *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.

(b) To meet the work practice standards in Table 3 to this subpart, for each affected kiln, you must use natural gas, or an equivalent fuel (such as propane or other clean burning fuel), as the kiln fuel at all times except during periods of natural gas curtailment or other periods when natural gas is not available.

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 and during periods of routine control device maintenance as specified in paragraph (e) of this section.

(b) Except as specified in paragraph (e) of this section, 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) For each kiln that is subject to the emission limits specified in Table 1 to this subpart, you must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3).

(d) For each kiln that is subject to the emission limits specified in Table 1 to this subpart, you must prepare and implement a written operation, maintenance, and monitoring (OM&M) plan according to the requirements in § 63.8575.

(e) If you own or operate a kiln that is subject to the emission limits specified in Table 1 to this subpart and must perform routine maintenance on the control device for that kiln, you may bypass the kiln control device and continue operating the kiln upon approval by the Administrator provided you satisfy the conditions listed in paragraphs (e)(1) through (5) of this section.

(1) You must request a routine control device maintenance exemption from the Administrator. Your request must justify the need for the routine maintenance on the control device and the time required to accomplish the maintenance activities, describe the maintenance activities and the frequency of the maintenance activities, explain why the maintenance cannot be accomplished during kiln shutdowns, describe how you plan to minimize emissions to the greatest extent possible during the maintenance, and provide any other documentation required by the Administrator.

(2) The routine control device maintenance exemption must not exceed 4 percent of the annual operating uptime for each kiln.

(3) The request for the routine control device maintenance exemption, if approved by the Administrator, must be incorporated by reference in and attached to the affected source's title V permit.

(4) You must minimize HAP emissions during the period when the kiln is operating and the control device is offline.

(5) You must minimize the time period during which the kiln is operating and the control device is offline.

(f) You must be in compliance with the work practice standards in this subpart at all times, except during periods of natural gas curtailment or other periods when natural gas is not available.

(g) You must be in compliance with the provisions of subpart A of this part, except as noted in Table 8 to this subpart.

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

(a) For each kiln that is subject to the emission limits specified in Table 1 to this subpart, 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 (13) 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 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.

(13) If you operate an affected kiln and you plan to take the kiln control device out of service for routine maintenance, as specified in § 63.8570(e), the procedures specified in paragraphs (b)(13)(i) and (ii) of this section.

(i) Procedures for minimizing HAP emissions from the kiln during periods of routine maintenance of the kiln control device when the kiln is operating and the control device is offline.

(ii) Procedures for minimizing the duration of any period of routine maintenance on the kiln control device when the kiln is operating and the control device is offline.

(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?

For each kiln that is subject to the emission limits specified in Table 1 to this subpart, 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) For each kiln that is subject to the emission limits specified in Table 1 to this subpart, 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 4 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 4 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 the percent reduction HF and HCl emission limits 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 4 to this subpart.

(i) For each kiln that is subject to the emission limits specified in Table 1 to this subpart and 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 4 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, out-of-control periods, or periods of routine control device maintenance covered by a routine control device maintenance exemption as specified in § 63.8570(e)).

(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, out-of-control periods, or periods of routine control device maintenance covered by a routine control device maintenance exemption as specified in § 63.8570(e)).

(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 liquid flow measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (b)(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.

(c) For each pressure measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (c)(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.

(d) For each pH measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (d)(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.

(e) For each bag leak detection system, you must meet the requirements in paragraphs (e)(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.

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

(g) For each limestone feed system on a DLA, you must meet the requirements in paragraphs (a)(1), (4), and (5) of this section and must ensure on a monthly basis that the feed system replaces limestone at least as frequently as the schedule set during the performance test.

(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 and work practice standards?

(a) You must demonstrate initial compliance with each emission limitation and work practice standard that applies to you according to Table 5 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 4 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, malfunction, and routine control device maintenance as specified in § 63.8570(e) 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. Any averaging period for which you do not have valid monitoring data and such data are required constitutes a deviation from the monitoring requirements.

§ 63.8620 How do I demonstrate continuous compliance with the emission limitations and work practice standards?

(a) You must demonstrate continuous compliance with each emission limit, operating limit, and work practice standard in Tables 1, 2, and 3 to this subpart that applies to you according to the methods specified in Table 6 to this subpart.

(b) For each kiln that is subject to the emission limits specified in Table 1 to this subpart and 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 operating limit in this subpart that applies to you. This includes periods of startup, shutdown, malfunction, and routine control device maintenance. 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 an SSMP that satisfies the requirements of § 63.6(e) 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).

(f) Deviations that occur during periods of control device maintenance covered by an approved routine control device maintenance exemption according to § 63.8570(e) are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the approved routine control device maintenance exemption.

(g) You must demonstrate continuous compliance with the operating limits in Table 2 to this subpart for visible emissions (VE) from tunnel kilns equipped with DLA, DIFF, or DLS/FF by monitoring VE at each kiln stack according to the requirements in paragraphs (g)(1) through (3) of this section.

(1) Perform daily VE observations of each kiln stack according to the procedures of Method 22 of 40 CFR part 60, appendix A. You must conduct the Method 22 test while the affected source is operating under normal conditions. The duration of each Method 22 test must be at least 15 minutes.

(2) If VE are observed during any daily test conducted using Method 22 of 40 CFR part 60, appendix A, you must promptly initiate and complete corrective actions according to your OM&M plan. If no VE are observed in 30 consecutive daily Method 22 tests for any kiln stack, you may decrease the frequency of Method 22 testing from daily to weekly for that kiln stack. If VE are observed during any weekly test, you must promptly initiate and complete corrective actions according to your OM&M plan, resume Method 22 testing of that kiln stack on a daily basis, and maintain that schedule until no VE are observed in 30 consecutive daily tests, at which time you may again decrease the frequency of Method 22 testing to a weekly basis.

(3) If VE are observed during any test conducted using Method 22 of 40 CFR part 60, appendix A, you must report these deviations by following the requirements in § 63.8635.

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 May 16, 2003, you must submit an Initial Notification not later than 120 calendar days after May 16, 2003.

(c) As specified in § 63.9(b)(3), if you start up your new or reconstructed affected source or affected source described in § 63.8540(f)(1) or § 63.8540(f)(2) on or after May 16, 2003, 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 written 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 or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status as specified in § 63.9(h) and paragraphs (e)(1) through (3) of this section.

(1) For each compliance demonstration that includes a performance test conducted according to the requirements in Table 4 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, if a bag leak detection system is used, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in § 63.8600(e).

(3) For each compliance demonstration required in Table 5 to this subpart that does not include a performance test (*i.e.*, compliance demonstration for the work practice standard), you must submit the Notification of Compliance Status before the close of business on the 30th calendar day following the completion of the compliance demonstration.

(f) If you request a routine control device maintenance exemption according to § 63.8570(e), you must submit your request for the exemption no later than 30 days before the compliance date.

(g) If you own or operate an affected kiln that is subject to the work practice standards specified in Table 3 to this subpart, and you intend to use a fuel other than natural gas or equivalent to fire the affected kiln, you must submit a notification of alternative fuel use within 48 hours of the declaration of a period of natural gas curtailment or supply interruption, as defined in § 63.8665. The notification must include the information specified in paragraphs (g)(1) through (5) of this section.

(1) Company name and address.

(2) Identification of the affected kiln.

(3) Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.

(4) Type of alternative fuel that you intend to use.

(5) Dates when the alternative fuel use is expected to begin and end.

§ 63.8635 What reports must I submit and when?

(a) You must submit each report in Table 7 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 7 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 (7) 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) A description of control device maintenance performed while the control device was offline and the kiln controlled by the control device was operating, including the information specified in paragraphs (c)(5)(i) through (iii) of this section.

(i) The date and time when the control device was shutdown and restarted.

(ii) Identification of the kiln that was operating and the number of hours that the kiln operated while the control device was offline.

(iii) A statement of whether or not the control device maintenance was included in your approved routine control device maintenance exemption developed as specified in § 63.8570(e). If the control device maintenance was included in your approved routine control device maintenance exemption, then you must report the information in paragraphs (c)(5)(iii)(A) through (C) of this section.

(A) The total amount of time that the kiln controlled by the control device operated during the current semiannual compliance period and during the previous semiannual compliance period.

(B) The amount of time that each kiln controlled by the control device operated while the control device was offline for maintenance covered under the routine control device maintenance exemption during the current semiannual compliance period and during the previous semiannual compliance period.

(C) Based on the information recorded under paragraphs (c)(5)(iii)(A) and (B) of this section, compute the annual percent of kiln operating uptime during which the control device was offline for routine maintenance using Equation 1 of this section.

$$RM = \frac{DT_p + DT_c}{KU_p + KU_c}\ (100) \qquad \text{(Eq. 1)}$$

Where:

RM=Annual percentage of kiln uptime during which control device is down for routine control device maintenance

DT_p=Control device downtime claimed under the routine control device maintenance exemption for the previous semiannual compliance period

DT_c=Control device downtime claimed under the routine control device maintenance exemption for the current semiannual compliance period

KU_p=Kiln uptime for the previous semiannual compliance period

KU_c=Kiln uptime for the current semiannual compliance period

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

(7) 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 (5) and paragraphs (d)(1) and (2) of this section. This includes periods of startup, shutdown, malfunction, and routine control device maintenance.

(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 (5) and paragraphs (e)(1) through (13) of this section. This includes periods of startup, shutdown, malfunction, and routine control device maintenance.

(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 pertinent 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; during routine control device maintenance covered in your approved routine control device maintenance exemption; 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 according 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 7 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 permitting authority.

(g) If you own or operate an affected kiln that is subject to the work practice standard specified in Table 3 to this subpart, and you use a fuel other than natural gas or equivalent to fire the affected kiln, you must submit a report of alternative fuel use within 10 working days after terminating the use of the alternative fuel. The report must include the information in paragraphs (g)(1) through (6) of this section.

(1) Company name and address.

(2) Identification of the affected kiln.

(3) Reason for using the alternative fuel.

(4) Type of alternative fuel used to fire the affected kiln.

(5) Dates that the use of the alternative fuel started and ended.

(6) Amount of alternative fuel used.

§ 63.8640 What records must I keep?

(a) You must keep the records listed in paragraphs (a)(1) through (4) 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).

(4) Records relating to control device maintenance and documentation of your approved routine control device maintenance exemption, if you request such an exemption under § 63.8570(e).

(b) You must keep the records required in Table 6 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 (7) 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 kiln that is subject to the emission limits in Table 1, records of production rates on a fired-product weight basis.

(4) For each kiln that is subject to the emission limits in Table 1, records for any approved alternative monitoring or test procedures.

(5) For each kiln that is subject to the emission limits in Table 1, records of maintenance and inspections performed on the APCD.

(6) For each kiln that is subject to the emission limits in Table 1, current copies of your SSMP and OM&M plan, including any revisions, with records documenting conformance.

(7) Records that document compliance with any work practice standard that applies to you.

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

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

(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 8 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 APCD 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 APCD 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.

Dry limestone adsorber (DLA) means an APCD that includes a limestone storage bin, a reaction chamber that is essentially a packed tower filled with limestone, and may or may not include a peeling drum that mechanically scrapes reacted limestone to regenerate the stone for reuse.

Emission limitation means any emission limit or operating limit.

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

Initial startup means:

(1) For a new or reconstructed tunnel kiln controlled with a DLA, and for a tunnel kiln that would be considered reconstructed but for § 63.8540(f)(1) or § 63.8540(f)(2), the time at which the temperature in the kiln first reaches 260 °C (500 °F) and the kiln contains product; or

(2) For a new or reconstructed tunnel kiln controlled with a DIFF, DLS/FF, or WS, the time at which the kiln first reaches a level of production that is equal to 75 percent of the kiln design capacity or 12 months after the affected source begins firing clay ceramics, whichever is earlier.

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.

Period of natural gas curtailment or supply interruption means a period of time during which the supply of natural gas to an affected facility is halted for reasons beyond the control of the facility. An increase in the cost or unit price of natural gas does not constitute a period of natural gas curtailment or supply interruption.

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, except in a *de minimis* manner.

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

Startup means the setting in operation of an affected source and starting the production process.

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

Tunnel kiln design capacity means the maximum amount of clay ceramics, in Mg (tons), that a kiln is designed to produce in one year divided by the number of hours in a year (8,760 hours). 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 APCD 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.

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

Tables to Subpart KKKKK of Part 63

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

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 kiln with a design capacity less than 9.07 Mg/hr (10 tph) of fired product; each tunnel kiln that would be considered reconstructed but for § 63.8540(f)(1); and each tunnel kiln that would be considered reconstructed but for § 63.8540(f)(2).	a. HF emissions must not exceed 0.029 kilograms per megagram (kg/Mg) (0.057 pounds per ton (lb/ton)) of fired product.	Reduce uncontrolled HF emissions by at least 90 percent.
	b. HCl emissions must not exceed 0.13 kg/Mg (0.26 lb/ton) of fired product.	Reduce uncontrolled HCl emissions by at least 30 percent.
	c. PM emissions must not exceed 0.21 kg/Mg (0.42 lb/ton) of fired product.	Not applicable.
2. New or reconstructed tunnel kiln with a design capacity equal to or greater than 10 tph of fired product.	a. HF emissions must not exceed 0.029 kg/Mg (0.057 lb/ton) of fired product.	Reduce uncontrolled HF emissions by at least 90 percent.
	b. HCl emissions must not exceed 0.028 kg/Mg (0.056 lb/ton) of fired product.	Reduce uncontrolled HCl emissions by at least 85 percent.
	c. PM emissions must not exceed 0.060 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 DLA	a. Maintain the average pressure drop across the DLA for each 3-hour block period at or above the average pressure drop established during the performance test; and b. Maintain a sufficient amount of limestone in the limestone hopper, storage bin (located at the top of the DLA), and DLA at all times; maintain the limestone feeder setting at or above the level established during the performance test; and c. Use the same grade of limestone from the same source as was used during the performance test; maintain records of the source and grade of limestone; and d. Maintain no VE from the DLA stack.
2. Kiln equipped with a DIFF or DLS/FF.	a. If you use a bag leak detection system, 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; or maintain no VE from the DIFF or DLS/FF stack; and b. 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.
3. Kiln equipped with a 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 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 § 63.8555, you must comply with each work practice standard in the following table that applies to you:

TABLE 3 TO SUBPART KKKKK OF PART 63.—WORK PRACTICE STANDARDS

For . . .	You must . . .	According to one of the following requirements . . .
Each existing, new, or reconstructed periodic kiln, tunnel kiln, or roller kiln; each tunnel kiln that would be considered reconstructed but for § 63.8540(f)(1); and each tunnel kiln that would be considered reconstructed but for § 63.8540(f)(2).	Minimize fuel-based HAP emissions.	Use natural gas, or equivalent, as the kiln fuel, except during periods of natural gas curtailment or supply interruption, as defined in § 63.8665.

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

TABLE 4 TO SUBPART KKKKK OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS

For each . . .	You must . . .	Using . . .	According to the following requirements . . .
1. New or reconstructed tunnel kiln; each tunnel kiln that would be considered reconstructed but for § 63.8540(f)(1); and each tunnel kiln that would be considered reconstructed but for § 63.8540(f)(2).	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; or	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 WS) is present.
		Method 320 of 40 CFR part 63, appendix A.	Conduct the test while operating at the maximum production level. When using Method 320 of 40 CFR part 63, appendix A, you must follow the analyte spiking procedures of section 13 of Method 320 of 40 CFR part 63, appendix A, unless you can demonstrate that the complete spiking procedure has been conducted at a similar source.
	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 DLA.	a. Establish the operating limit for the average pressure drop across the DLA.	Data from the pressure drop measurement device during the performance test.	You must continuously measure the pressure drop across the DLA, 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.

TABLE 4 TO SUBPART KKKKK OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS—Continued

For each . . .	You must . . .	Using . . .	According to the following requirements . . .
	b. Establish the operating limit for the limestone feeder setting.	Data from the limestone feeder during the performance test.	You must ensure that you maintain an adequate amount of limestone in the limestone hopper, storage bin (located at the top of the DLA), and DLA at all times during the performance test. You must establish your limestone feeder setting one week prior to the performance test and maintain the feeder setting for the one-week period that precedes the performance test and during the performance test.
	c. Document the source and grade of limestone used.	Records of limestone purchase.	
4. Kiln equipped with a DIFF or DLS/FF	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.
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 5 TO SUBPART KKKKK OF PART 63.—INITIAL COMPLIANCE WITH EMISSION LIMITATIONS AND WORK PRACTICE STANDARDS

For each . . .	For the following . . .	You have demonstrated initial compliance if . . .
1. New or reconstructed tunnel kiln with a design capacity less than 9.07 Mg/hr (10 tph) of fired product; each tunnel kiln that would be considered reconstructed but for §63.8540(f)(1); and each tunnel kiln that would be considered reconstructed but for §63.8540(f)(2).	a. HF emissions must not exceed 0.029 kg/Mg (0.057 lb/ton) of fired product; or uncontrolled HF emissions must be reduced by at least 90 percent; and.	i. The HF emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test, according to the calculations in §63.8595(g)(1), do not exceed 0.029 kg/Mg (0.057 lb/ton); or uncontrolled HF emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, 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 HF emissions did not exceed 0.029 kg/Mg (0.057 lb/ton) or uncontrolled HF emissions were reduced by at least 90 percent.
	b. HCl emissions must not exceed 0.13 kg/Mg (0.26 lb/ton) of fired product; or uncontrolled HCl emissions must be reduced by at least 30 percent; and	i. The HCl emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test, according to the calculations in §63.8595(g)(1), do not exceed 0.13 kg/Mg (0.26 lb/ton); or uncontrolled HCl emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test are reduced by at least 30 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 0.13 kg/Mg (0.26 lb/ton) or uncontrolled HCl emissions were reduced by at least 30 percent.
	c. PM emissions must not exceed 0.21 kg/Mg (0.42 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 0.21 kg/Mg (0.42 lb/ton); and ii. You establish and have a record of the operating limits listed in Table 2 to this supbart over the 3-hour performance test during which PM emissions did not exceed 0.21 kg/Mg (0.42 lb/ton).
2. New or reconstructed tunnel kiln with a design capacity equal to or greater than 10 tph of fired product.	a. HF emissions must not exceed 0.029 kg/Mg (0.057 lb/ton) of fired product; or uncontrolled HF emissions must be reduced by at least 90 percent; and	i. The HF emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test, according to the calculations in §63.8595(g)(1), do not exceed 0.029 kg/Mg (0.057 lb/ton); or uncontrolled HF emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, 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 HF emissions did not exceed 0.029 kg/Mg (0.057 lb/ton) or uncontrolled HF emissions were reduced by at least 90 percent.
	b. HCl emissions must not exceed 0.028 kg/Mg (0.056 lb.ton) of fired product; or uncontrolled HCl emissions must be reduced by at least 85 percent; and	i. The HCl emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test, according to the calculations in §63.8595(g)(1), do not exceed 0.028 kg/Mg (0.056 lb/ton); or uncontrolled HCl emissions measured using Method 26A of 40 CFR part 60, appendix A or Method 320 of 40 CFR part 63, appendix A over the period of the initial performance test are reduced by at least 85 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 0.028 kg/Mg (0.056 lb/ton) or uncontrolled HCl emissions were reduced by at least 85 percent.
	c. PM emissions must not exceed 0.060 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 on §63.8595(g)(1), do not exceed 0.060 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 0.060 kg/Mg (0.12 lb/ton).

TABLE 5 TO SUBPART KKKKK OF PART 63.—INITIAL COMPLIANCE WITH EMISSION LIMITATIONS AND WORK PRACTICE STANDARDS—Continued

For each . . .	For the following . . .	You have demonstrated initial compliance if . . .
3. Existing, new, or reconstructed periodic kiln, tunel kiln, or roller kiln; each tunnel kiln that would be considered reconstructed but for § 63.8540(f)(1); and each tunnel kiln that would be considered reconstructed but for § 63.8540(f)(2).	Minimize fuel-based HAP emissions.	You use natural gas, or equivalent, as the kiln fuel.

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 6 TO SUBPART KKKKK OF PART 63.—CONTINUOUS COMPLIANCE WITH EMISSION LIMITATIONS AND WORK PRACTICE STANDARDS

For each . . .	For the following . . .	You must demonstrate continuous compliance by . . .
1. Kiln equipped with a DLA	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 a DLA.	i. Collecting the DLA pressure drop data according to § 63.8600(a); reducing the DLA pressure drop data to 3-hour block averages according to § 63.8600(a); maintaining the average pressure drop across the DLA for each 3-hour block period at or above the average pressure drop established during the performance test; and ii. Verifying that the limestone hopper and storage bin (located at the top of the DLA) contain adequate limestone by performing a daily visual check; and iii. Recording the limestone feeder setting daily to verify that the feeder setting is being maintained at or above the level established during the performance test; and iv. Using the same grade of limestone from the same source as was used during the performance test; maintaining records of the source and type of limestone; and v. Performing VE observations of the DLA stack at the frequency specified in § 63.8620(g) using Method 22 of 40 CFR part 60, appendix A; maintaining no VE from the DLA stack.
2. Kiln equipped with a DIFF or DLS/FF.	a. 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 DIFF or DLS/FF.	i. If you use a bag leak detection system, 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; or performing VE observations of the DIFF or DLS/FF stack at the frequency specified in § 63.8620(g) using Method 22 of 40 CFR part 60, appendix A; maintaining no VE from the DIFF or DLS/FF stack; and ii. 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.
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

TABLE 6 TO SUBPART KKKKK OF PART 63.—CONTINUOUS COMPLIANCE WITH EMISSION LIMITATIONS AND WORK PRACTICE STANDARDS—Continued

For each . . .	For the following . . .	You must demonstrate continuous compliance by . . .
		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 for each 3-hour block period at or above the average scrubber chemical feed rate established during the performance test.
4. Existing, new, or reconstructed periodic kiln, tunnel kiln, or roller kiln; each tunnel kiln that would be considered reconstructed but for §63.8540 (f)(1); and each tunnel kiln that would be considered reconstructed but for §63.8540(f)(2).	Minimize fuel-based HAP emissions.	i. Maintaining records documenting your use of natural gas, or an equivalent fuel, as the kiln fuel at all times except during periods of natural gas curtailment or supply interruption; and ii. If you intend to use an alternative fuel, submitting a notification of alternative fuel use within 48 hours of the declaration of a period of natural gas curtailment or supply interruption, as defined in §63.8665; and iii. Submitting a report of alternative fuel use within 10 working days after terminating the use of the alternative fuel, as specified in §63.8635(g).

As stated in §63.8635, you must submit each report that applies to you according to the following table:

TABLE 7 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 or work practice standards that apply to you, a statement that there were no deviations from the emission limitations or work practice standards 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).
	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 consistent with your SSMP, the 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.
3. A report of alternative fuel use	The information in §63.8635(g)	If you are subject to the work practice standards specified in Table 3 to this subpart, and you use an alternative fuel to fire an affected kiln, by letter within 10 working days after terminating the use of the alternative fuel.

As stated in §63.8655, you must comply with the General Provisions in §§63.1 through 63.15 that apply to you according to the following table:

TABLE 8 TO SUBPART KKKKK OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART KKKKK

Citation	Subject	Brief description	Applies to subpart KKKKK
§ 63.1	Applicability	Initial applicability determination; applicability after standard established; permit requirements; extensions, notifications..	Yes.
§ 63.2	Definitions	Definitions for part 63 standards	Yes.
§ 63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes.
§ 63.4	Prohibited Activities	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	Must notify if commenced construction or reconstruction after proposal.	Yes.
§ 63.6(b)(6)	[Reserved].		
§ 63.6(b)(7)	Compliance Dates for New and Reconstructed area Sources That Become Major.	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were 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).	Requirement for startup, shutdown, and malfunction (SSM) and SSMP; content of SSMP.	Yes.
§ 63.6(f)(1)	Compliance Except During SSM	You must comply with emission standards at all times except during SSM.	Yes.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection.	Yes.
§ 63.6(g)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§ 63.6(h)	Opacity/VE Standards	Requirements for opacity and 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)	Section 114 Authority	Administrator may require a performance test under CAA section 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	Requirements for 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.

TABLE 8 TO SUBPART KKKKK OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART KKKKK—Continued

Citation	Subject	Brief description	Applies to subpart KKKKK
§ 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	Procedures by which Administrator can grant approval to use an alternative test method.	Yes.
§ 63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; must submit performance test data 60 days after end of test with the notification of compliance status.	Yes.
§ 63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test.	Yes.
§ 63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in subpart	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	Requirements for flares in § 63.11 apply	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)	CMS Requirements	Requirements for CMS	No, §§ 63.8575 and 63.8615 specify requirements.
§ 63.8(c)(5)	Continuous Opacity Monitoring System (COMS) Minimum Procedures.	COMS minimum procedures	No, not applicable.
§ 63.8(c)(6)	CMS Requirements	Zero and high level calibration check requirements.	No, § 63.8575 specifies requirements.
§ 63.8(c)(7)–(8)	CMS Requirements	Out-of-control periods	No, § 63.8575 specifies requirements.
§ 63.8(d)	CMS Quality Control	Requirements for CMS quality control	No, § 63.8575 specifies requirements.
§ 63.8(e)	CMS Performance Evaluation	Requirements for 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	Procedures for Administrator to approve alternative relative accuracy test for continuous emission monitoring systems (CEMS).	No, not applicable.
§ 63.8(g)	Data Reduction	COMS and CEMS data reduction requirements	No, not applicable.
§ 63.9(a)	Notification Requirements	Applicability; State delegation	Yes.
§ 63.9(b)	Initial Notifications	Requirements for initial notifications	Yes.
§ 63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed BACT/LAER.	Yes.
§ 63.9(d)	Notification of Special Compliance Requirements for New Source.	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date.	Yes.
§ 63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes.
§ 63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No, not applicable.
§ 63.9(g)(1)	Additional Notifications When Using CMS	Notification of performance evaluation	Yes.
§ 63.9(g)(2)–(3)	Additional Notifications When Using CMS	Notification of COMS data use; notification that relative accuracy alternative criterion were exceeded..	No, not applicable.

TABLE 8 TO SUBPART KKKKK OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART KKKKK—Continued

Citation	Subject	Brief description	Applies to subpart KKKKK
§ 63.9(h)	Notification of Compliance Status	Contents; submittal requirements	Yes.
§ 63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change in when notifications must be submitted.	Yes.
§ 63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes.
§ 63.10(a)	Recordkeeping/Reporting	Applicability; general information	Yes.
§ 63.10(b)(1)	General Recordkeeping Requirements	General requirements	Yes.
§ 63.10(b)(2)(i)–(v)	Records Related to SSM	Requirements for SSM records	Yes.
§ 63.10(b)(2)(vi)–(xii) and (xiv).	CMS Records	Records when CMS is malfunctioning, inoperative or out-of-control.	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	Additional records for CMS	No, §§ 63.8575 and 63.8640 specify requirements.
§ 63.10(d)(1) and (2)	General Reporting Requirements	Requirements for reporting; performance test results reporting.	Yes.
§ 63.10(d)(3)	Reporting Opacity or VE Observations	Requirements for reporting opacity and VE	No, not applicable.
§ 63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension.	Yes.
§ 63.10(d)(5)	SSM Reports	Contents and submission	Yes.
§ 63.10(e)(1)–(3)	Additional CMS Reports	Requirements for CMS reporting	No, §§ 63.8575 and 63.8635 specify requirements.
§ 63.10(e)(4)	Reporting COMS data	Requirements for reporting COMS data with performance test data.	No, not applicable.
§ 63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.
§ 63.11	Flares	Requirement for flares	No, not applicable.
§ 63.12	Delegation	State authority to enforce standards	Yes.
§ 63.13	Addresses	Addresses for reports, notifications, requests	Yes.
§ 63.14	Incorporation by Reference	Materials incorporated by reference	Yes.
§ 63.15	Availability of Information	Information availability; confidential information	Yes.

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