

The EPA Administrator, Andrew R. Wheeler, signed the following notice on 10/10/2019, and EPA is submitting it for publication in the *Federal Register* (FR). While we have taken steps to ensure the accuracy of this Internet version of the rule, it is not the official version of the rule for purposes of compliance. Please refer to the official version in a forthcoming FR publication, which will appear on the Government Printing Office's govinfo website (<https://www.govinfo.gov/app/collection/fr>) and on Regulations.gov (<https://www.regulations.gov>) in Docket No. EPA-HQ-OAR-2013-0290. Once the official version of this document is published in the FR, this version will be removed from the Internet and replaced with a link to the official version.

6560-50-P

## **ENVIRONMENTAL PROTECTION AGENCY**

### **40 CFR Part 63**

**[EPA-HQ-OAR-2013-0290; FRL-XXXX-OAR]**

**[RIN 2060-AT25]**

### **National Emission Standards for Hazardous Air Pollutants for Clay Ceramics**

#### **Manufacturing**

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

**ACTION:** Amendments; final rule.

**SUMMARY:** This action finalizes certain amendments to the National Emission Standards for Hazardous Air Pollutants (NESHAP): Clay Ceramics Manufacturing source category. The final amendments are being issued in response to a petition for reconsideration filed by an affected industry (Kohler Company) on the final rule promulgated on October 26, 2015, as well as our review of the 2015 rule with respect to certain other issues raised by Kohler. This action revises the temperature monitoring methodology used to demonstrate continuous compliance with the dioxin/furan (D/F) emissions limit of the final rule. In addition, we are addressing concerns raised by Kohler regarding visible emissions (VE) monitoring of tunnel kiln stacks for continuous compliance with particulate matter (PM) and mercury (Hg) emission limitations. This action also amends the requirements for weekly visual inspections of system ductwork and control device equipment for water curtain spray booths. Lastly, this action amends the NESHAP to include provisions for emissions averaging, makes technical corrections, and adds certain definitions.

**DATES:** This final rule is effective on [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** The U.S. Environmental Protection Agency (EPA) has established a docket for this rulemaking under Docket ID No. EPA-HQ-OAR-2013-0290. All documents in the docket are listed on the <https://www.regulations.gov/> website. Although listed, some information is not publicly available, *e.g.*, confidential business information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through <https://www.regulations.gov/>, or in hard copy form at the EPA Docket Center, Room 3334, WJC West Building, 1301 Constitution Avenue NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the EPA Docket Center is (202) 566-1742.

**FOR FURTHER INFORMATION CONTACT:** For questions about this final action, contact Mr. Brian Storey, Sector Policies and Programs Division (D243-04), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-1103; fax number: (919) 541-4991; and email address: [storey.brian@epa.gov](mailto:storey.brian@epa.gov).

**SUPPLEMENTARY INFORMATION:**

*Preamble acronyms and abbreviations.* We use multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

BSCP	brick and structural clay products
CAA	Clean Air Act
CBI	Confidential Business Information
CFR	Code of Federal Regulations
D/F	dioxins/furans
EJ	environmental justice
EPA	U.S. Environmental Protection Agency
HAP	hazardous air pollutant(s)
Hg	mercury
HON	Hazardous Organic NESHAP
lb	pounds
NAICS	North American Industry Classification System
NESHAP	national emission standards for hazardous air pollutants
No.	number
NTTAA	National Technology Transfer and Advancement Act
OMB	Office of Management and Budget
PM	particulate matter
POC	products of combustion
PRA	Paperwork Reduction Act
RFA	Regulatory Flexibility Act
UMRA	Unfunded Mandates Reform Act
U.S.	United States
U.S.C.	United States Code
v.	versus
VE	visible emissions

*Background information.* On August 20, 2018, the EPA proposed revisions to the Clay Ceramics Manufacturing NESHAP. In this action, we are finalizing revisions to the rule. The EPA briefly summarizes the more significant comments we received regarding the proposed rule that have resulted in changes to the final rule, and we provide our responses in this preamble. A more comprehensive summary of the public comments on the proposal and the EPA’s responses to those comments is available in the *National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing; Amendments—Background Information for Final Rule: Summary of Public Comments and Responses*. A “track changes” version of the regulatory language that incorporates the changes in this action is available in the docket.

*Organization of this document.* The information in this preamble is organized as follows:

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### **I. General Information**

#### *A. Does this action apply to me?*

Table 1 of this preamble lists the NESHAP and associated regulated industrial source categories that are the subject of this final action. Table 1 is not intended to be exhaustive but rather provides a guide for readers regarding the entities that this final action is likely to affect.

The final amendments will be directly applicable to the affected sources. Federal, state, local and tribal government entities would not be affected by this final action. As defined in the *Initial List*

of *Categories of Sources Under Section 112(c)(1) of the Clean Air Act Amendments of 1990* (see 57 FR 31576, July 16, 1992) and *Documentation for Developing the Initial Source Category List* (see EPA-450/3-91-030), the Clay Products Manufacturing source category as originally listed included any facility engaged in manufacturing of clay products such as brick, vitrified clay pipe, structural clay tile, and clay refractories. The Clay Products Manufacturing source category has since been replaced by the Brick and Structural Clay Products (BSCP) Manufacturing source category and the Clay Ceramics Manufacturing source category (see 67 FR 47894, July 22, 2002).

**Table 1—NESHAP and Industrial Source Categories Affected by this Final Action**

Category	NAICS code <sup>1</sup>	Examples of potentially regulated entities
Industry....	327120	Ceramic wall and floor tile manufacturing facilities (Clay Ceramics Manufacturing NESHAP).
	327110	Vitreous plumbing fixtures (sanitaryware) manufacturing facilities (Clay Ceramics Manufacturing NESHAP).
Federal government...	...	Not affected.
State/local/tribal government...	...	Not affected.

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

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

In addition to being available in the docket, an electronic copy of this final action is available on the Internet. Following signature by the EPA Administrator, the EPA will post a copy of this final action at <https://www.epa.gov/stationary-sources-air-pollution/brick-and-structural-clay-products-national-emission-standards>. Following publication in the **Federal Register**, the EPA will post the **Federal Register** version of the final amendments and key technical documents at this same website.

A redline version of the regulatory language that incorporates the changes in this final action is available in the docket for this action (Docket ID No. EPA-HQ-OAR-2013-0290).

*C. Judicial Review and Administrative Reconsideration*

Under Clean Air Act (CAA) section 307(b)(1), judicial review of this final action is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit by **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce the requirements.

Section 307(d)(7)(B) of the CAA further provides that only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. This section also provides a mechanism for the EPA to reconsider the rule if the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within the period for public comment or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule. Any person seeking to make such a demonstration should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, WJC South Building, 1200 Pennsylvania Ave., NW, Washington, DC 20460, with a copy to both the person listed in the preceding FOR FURTHER INFORMATION CONTACT section, and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave., NW, Washington, DC 20460.

## II. Background

### A. What is the statutory authority for this action?

The statutory authority for this action is provided by sections 112 and 307(d)(7)(B) of the CAA as amended (42 U.S.C. 7412 and 7607(d)(7)(B)).

### B. What actions preceded these final amendments?

The initial NESHAP for Clay Ceramics Manufacturing was published in the **Federal Register** on May 16, 2003 (68 FR 26690), and codified at 40 CFR part 63, subpart KKKKK, pursuant to section 112 of the CAA. These standards were challenged and subsequently vacated by the United States Court of Appeals for the District of Columbia Circuit in 2007. See *Sierra Club v. EPA*, 479 F.3d 875, 876 (D.C. Cir. 2007). Following the 2007 vacatur of the 2003 rule, the EPA collected additional data and information to support new standards for the clay ceramics industry. This information is contained in the docket at <https://www.regulations.gov/> (see Docket ID No. EPA-HQ-OAR-2013-0290). On December 18, 2014, the EPA proposed the new NESHAP for Clay Ceramics Manufacturing (79 FR 75622). The EPA received additional data and comments during the public comment period. These data and comments were considered and analyzed and, where appropriate, revisions to the NESHAP were made. The NESHAP for Clay Ceramics Manufacturing was finalized on October 26, 2015 (80 FR 65470).

On December 23, 2015, Kohler Company (Kohler) petitioned the EPA for reconsideration of the final rule for Clay Ceramics Manufacturing (Docket ID No. EPA-HQ-OAR-2013-0290-0316). On August 20, 2018, we proposed revisions to the Clay Ceramics Manufacturing NESHAP based on the information provided by Kohler in their petition and information collected by the EPA (83 FR 42066). Public comments were received on the proposal requesting some changes to the proposed revisions. This action finalizes the revisions to

the NESHAP and, where deemed appropriate, incorporates the requested changes. The intent of these amendments is to provide flexibility to the clay ceramics manufacturing industry, while maintaining the emissions and operational standards of the NESHAP.

### **III. Summary of the Final Amendments**

The EPA is issuing the following amendments to 40 CFR part 63, subpart KKKKK in response to Kohler's petition for reconsideration on the October 26, 2015, final rule (80 FR 65470):

- Revise the temperature monitoring methodology used to demonstrate continuous compliance with the D/F emissions limits from sanitaryware first-fire tunnel kilns;
- Provide an alternative to the monitoring provisions for VE from tunnel kiln exhaust stacks;
- Amend the requirements for weekly visual inspections of system ductwork and control device equipment for water curtain spray booths;
- Define cooling stacks in the rule and differentiate cooling stacks from kiln exhaust stacks for compliance purposes; and
- Include provisions to allow emissions averaging for emissions from existing tunnel kilns and glaze spray booths and make associated revisions to the definition of affected source and recordkeeping and reporting requirements.

We are finalizing all the amendments listed above as proposed except for the provisions to allow emissions averaging. A description of the changes made to the emissions averaging provisions since proposal along with the rationale for those changes is provided in section IV of this preamble.

This final rule achieves meaningful burden reduction by providing regulated facilities with the ability to use existing monitoring equipment and removing the requirements for periodic inspections that we have determined are not necessary to demonstrate compliance. We also more clearly identify which stacks are cooling stacks; thus, avoiding the possibility that a source might be required to perform an emission test on a stack that emits only cooling air. Finally, this action provides additional compliance flexibility for sources to meet certain emissions limits by averaging; thereby, simplifying compliance. All of these actions should reduce the overall burden to the regulated sources.

This action is limited to the specific issues raised in the petition for reconsideration, plus some minor technical corrections. There are no changes to emission limits as a result of these final amendments. Technical corrections are being issued as proposed to correct inaccuracies that were promulgated in the final rule, replace text that might be considered confusing, and correct outdated information. These changes are described in Table 2 of this preamble.

**Table 2—Technical Corrections to 40 CFR Part 63, Subpart KKKKK**

<b>Table to subpart KKKKK</b>	<b>Description of correction</b>
40 CFR 63.8635(g)(1)	Update the addresses for EPA websites.
Table 2, item 3	To avoid confusion, revise the description of the operating limit for carbon flow rate.
Table 2, items 10 and 11	Revise the block period for average operating temperature for spray dryers and floor tile press dryers from 3-hour to 4-hour to align with the test run length for EPA Method 23.
Table 4, item 8	In the measurement of carbon flow rate data, include data from the Hg and D/F performance test data for tunnel or roller kilns equipped with an activated carbon injection system.
Table 4, items 11 and 12	Revise the block average for operating temperature for spray dryers and floor tile press dryers from 3-hour to 4-hour to align with the test run length for EPA Method 23.

Table 6, items 2.a.ii, 2.b.ii, 2.c.ii, 3.a.ii, 3.b.ii, 3.c.ii, 4.a.ii, 4.b.ii, 4.c.ii, 5.a.ii, 5.b.ii, 6.a.ii, 7.a.ii, 8.a.ii, 9.a.ii, 10.a.ii, 11.a.ii, 12.a.ii, 12.b.ii, 12.c.ii, 13.a.ii, 13.b.ii, 13.c.ii, 14.a.ii, 14.b.ii, 14.c.ii, 15.a.ii, 15.b.ii, 16.a.ii, 17.a.ii, 18.a.ii, 19.a.ii, 20.a.ii, and 21.a.ii	To avoid confusion, remove mention of the specific block period and simply refer to “the period of the initial performance test.”
Table 7, items 10 and 11	Revise the block average for operating temperature for spray dryers and floor tile press dryers from 3-hour to 4-hour to align with the test run length for EPA Method 23.

#### IV. Rationale for Changes to the Proposed Amendments

##### *A. Visible Emissions Monitoring of Tunnel Kiln Exhaust*

In its petition for reconsideration, Kohler stated that the EPA failed to adequately respond to Kohler’s public comments regarding VE monitoring in the Agency’s response to comments document and in the preamble for the final rule. In their comments on the December 18, 2014, proposal, Kohler had argued that VE monitoring is not a useful parameter to assess kiln operation nor to assess hazardous air pollutant (HAP) emissions. Kohler requested that the EPA open a new public comment period to reconsider and respond to Kohler’s concerns. In response to the petition, we proposed amendments to 40 CFR 63.8620 in the Clay Ceramics Manufacturing NESHAP, adding a new paragraph (e)(2) which provided an alternative to VE testing that allowed sources to demonstrate compliance by maintaining the kiln temperature profile within acceptable parameters and, for any incidence where the kiln exceeds its temperature profile, monitor VE at each kiln stack as specified.

In public comments on the proposed amendments, a commenter questioned Kohler’s assertion about VE monitoring and recommended that the EPA define what a “temperature profile” is and clarify what it means to “maintain” it v. “exceed” it. In response to this comment, we are finalizing amendments to 40 CFR 63.8620(e)(2), the operating limits table (Table 2), and

the continuous compliance table (Table 7) to clarify that the owner or operator will be required to maintain their kiln operating temperature within the range of acceptable temperatures (*i.e.*, a temperature profile) established for each kiln and product. For any incident where the kiln is operating outside of its acceptable temperature range (*i.e.*, exceeding its temperature profile) for the product being fired, the owner or operator will be required to record the incident as a deviation, and perform corrective action in accordance with the facility's operation, maintenance, and monitoring (OM&M) plan.

*B. Weekly Visual Inspections of Water Curtain Spray Booths*

In its petition for reconsideration, Kohler requested that the EPA reconsider the frequency of visual inspection requirements for system ductwork and control device equipment for water curtain spray booths. In response to the petition, we proposed amendments to the operating limits table (Table 2) and the continuous compliance table (Table 7) to remove the requirement to conduct weekly visual inspections of the system ductwork and control equipment for leaks for all glaze spray operations equipped with water curtains.

In public comments on the proposal, one commenter stated that if the EPA is relying on operator observations of visible particulate on the product to determine when there is a leak in the spray booth ductwork, the rule should require operators to log such incidents and report them as deviations when they occur. We recognize the commenter's concerns and agree that if there is an indication of particulate in the glaze of the product, then it is likely there is a failure in the ductwork requiring corrective action, and, therefore, this would be considered a deviation. We are finalizing amendments to Table 7 to require owners or operators to record as deviations any observations of particulates or other impurities getting into the glaze that has been sprayed onto a piece of ware and perform corrective action in accordance with the facility's OM&M plan.

*C. Emissions Averaging*

In its petition for reconsideration, Kohler requested that the EPA allow the use of emissions averaging as a compliance option in the Clay Ceramics Manufacturing NESHAP for existing tunnel kilns and glaze spray booths. In response to the petition, we proposed amendments to 40 CFR 63.8595 in the Clay Ceramics Manufacturing NESHAP that included alternative emissions averaging limits for the following:

- PM and Hg, in units of pounds per ton (lb/ton) of fired product for existing floor tile roller kilns;
- PM and Hg in units of lb/ton of fired product for existing wall tile roller kilns;
- PM and Hg, in units of lb/ton of greenware fired for existing first-fired sanitaryware tunnel kilns;
- PM and Hg, in units of lb/ton of first-fired glaze sprayed (dry weight basis) for existing tile glaze lines with glaze spraying; and
- PM, in units of lb/ton of first-fire glaze sprayed (dry weight basis), for existing sanitaryware manual, spray machine, or robot glaze applications.

The proposed conditions required for emissions averaging included the following:

(1) emissions averaging would only be permitted between individual sources at a single existing affected source; (2) emissions averaging would only be permitted between individual sources subject to the Clay Ceramics Manufacturing NESHAP; (3) emissions averaging would not be permitted between two or more different affected sources; (4) emissions averaging would not be permitted between two or more sources in different subcategories; (5) new sources could not use emissions averaging; and (6) averaged emissions could not exceed 90 percent of the applicable emission limit, which translates to a discount factor of 1.1 applied to actual emissions.

The emissions averaging provisions that we proposed were based, in part, on the emissions averaging provisions in the Hazardous Organic NESHAP (HON). The legal basis and rationale for the HON emissions averaging provisions were provided in the preamble to the final HON (59 FR 19425, April 22, 1994).

In public comments on the proposal, two commenters requested that the EPA remove the requirement that averaged emissions cannot exceed 90 percent of the applicable emission limit, and a third commenter stated that no justification was provided for the selection of 90 percent (instead of an alternate value, such as 80 or 99 percent). While averaging should only be permitted if it can be demonstrated that the total quantity of any HAP will not be greater than it could be if each individually affected unit complied separately with the applicable standard, one commenter stated this requirement can be demonstrated without the “90 percent of the limit” safety factor. The commenter noted that the EPA has allowed emissions averaging across similar emission units in other NESHAP, such as the Reinforced Plastics Composites NESHAP (40 CFR part 63, subpart WWWW), and stated that similar logic for averaging should be applied to this subpart to eliminate the unnecessary factor.

In response to these comments, we have re-evaluated whether a discount factor is appropriate for the emissions averaging provisions in this subpart and have concluded that a discount factor is not necessary here. The issues faced in the HON, where a discount factor of 1.1 was applied to the emissions averaging calculation, included significant differences in toxicity of the various HAP and a situation where facilities were applying emissions controls. This is not the case here. All facilities are meeting the relevant standards in this subpart without added controls and are using pollution prevention where needed. Accordingly, a straight average, without any discount factor, is appropriate in this situation. This straight-average approach is consistent with

other rules, such as the Reinforced Plastic Composites NESHAP. Therefore, the EPA has decided not to include a discount factor in 40 CFR 63.8595(h), Equation 9, and 40 CFR 63.8620, Equation 10 to calculate the average weighted emissions.

In addition, a commenter noted that the proposed emissions averaging provisions prohibited emissions averaging of new sources but did not prohibit emissions averaging of reconstructed sources. The commenter stated that reconstructed sources should not be allowed to use the emissions averaging provisions. We agree with the commenter, and in the final amendments the EPA has revised 40 CFR 63.8595(h)(1) to indicate that neither new nor reconstructed sources can be included in the emissions averaging.

Finally, we note that Equations 9 through 11 were all proposed to be added to 40 CFR 63.8595(h). However, one commenter noted an apparent discrepancy between Equation 9 and Equation 10, and it appears that the commenter misunderstood that Equation 9 is intended to determine initial compliance based on an initial performance test, while Equation 10 is intended to determine ongoing compliance based on the latest performance test. Equation 11 is also used for ongoing compliance and is intended to determine the 12-month rolling average of the monthly weighted average emission rates. Therefore, in the final amendments, Equations 10 and 11 have been moved to 40 CFR 63.8620, the section that describes how to demonstrate continuous compliance.

## **V. Summary of Cost, Environmental, and Economic Impacts**

This action will have no cost, environmental, energy, or economic impacts beyond those impacts presented in the October 26, 2015, final rule for Clay Ceramics Manufacturing and may result in a cost savings due to the changes in monitoring and testing requirements discussed in section III of this preamble. The technical corrections are cost neutral.

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

Additional information about these statutes and Executive Orders can be found at <https://www.epa.gov/laws-regulations/laws-and-executive-orders>.

### *A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review*

This action is not a significant regulatory action and was, therefore, not submitted to the OMB for review.

### *B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs*

This action is considered an Executive Order 13771 deregulatory action. This final rule provides meaningful burden reduction by providing additional regulatory flexibilities.

### *C. Paperwork Reduction Act (PRA)*

This action does not impose any new information collection burden under the PRA. OMB has previously approved the information collection activities contained in the existing regulation (40 CFR part 63, subpart KKKKK) and has assigned OMB control number 2060-0513. This action does not change the information collection requirements.

### *D. Regulatory Flexibility Act (RFA)*

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the impact of concern is any significant adverse economic impact on small entities. An agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, has no net burden, or otherwise has a positive economic effect on the small entities subject to the rule. This final rule will not impose any additional requirements on

small entities, only alternatives to existing requirements. We have, therefore, concluded that this action will have no net regulatory burden for all directly regulated small entities.

*E. Unfunded Mandates Reform Act (UMRA)*

This action does not contain an unfunded mandate as described in UMRA, 2 U.S.C. 1531-1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local, or tribal governments or the private sector.

*F. Executive Order 13132: Federalism*

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

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

This action does not have tribal implications as specified in Executive Order 13175. It will neither impose substantial direct compliance costs on federally recognized tribal governments, nor preempt tribal law. The final amendments impose no requirements on tribal governments. Thus, Executive Order 13175 does not apply to this action.

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

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of “covered regulatory action” in section 2-202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

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

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

*J. National Technology Transfer and Advancement Act (NTTAA)*

This rulemaking does not involve technical standards.

*K. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*

The EPA believes that this action does **not** have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations, and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). The documentation for this decision is contained in the docket. (See *EJ Screening Report for Clay Ceramics*, Docket ID Item No. EPA-HQ-OAR-2013-0290-0241.)

*L. Congressional Review Act (CRA)*

This action is subject to the CRA, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a “major rule” as defined by 5 U.S.C. 804(2).

**National Emission Standard for Hazardous Air Pollutants for Clay Ceramics  
Manufacturing**  
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**List of Subjects in 40 CFR Part 63**

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

\_\_\_\_\_  
Dated:

\_\_\_\_\_  
**Andrew R. Wheeler**

*Administrator.*

For the reasons set out in the preamble, 40 CFR part 63 is amended as follows:

**PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR  
POLLUTANTS FOR SOURCE CATEGORIES**

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

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

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

2. Section 63.8595 is amended by:

- a. Revising paragraph (c);
- b. Redesignating paragraph (h) as paragraph (i);
- c. Adding a new paragraph (h); and
- d. Revising newly redesignated paragraphs (i) introductory text and (i)(1) introductory

text.

The revisions and addition read as follows:

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

\* \* \* \* \*

(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. Stacks to be tested at sanitaryware manufacturing facilities shall be limited to products of combustion (POC) stacks and not include cooling stacks.

\* \* \* \* \*

(h)(1) As an alternative to meeting the requirements of §63.8555 for PM or mercury, if you have more than one existing source in any subcategories located at your facility, you may demonstrate compliance by emissions averaging, if your averaged emissions are no higher than

the applicable emission limit, according to the procedures in this section. You may not include new or reconstructed sources in an emissions average.

(2) For a group of two or more existing sources in the same subcategory that each vent to a separate stack, you may average PM or mercury emissions among existing units to demonstrate compliance with the limits in Table 1 to this subpart as specified in paragraph (h)(2)(i) through (iv) of this section, if you satisfy the requirements in paragraphs (h)(3) and (4) of this section.

(i) You may average across existing sources in the same kiln type and size category (*e.g.*, roller or tunnel kilns, large or small kilns) and the same subcategory (*e.g.*, sanitaryware manual or spray machine or robot glaze application) where applicable;

(ii) You may not include a unit in the emissions average if the unit shares a common stack with units in other subcategories;

(iii) You may not include spray dryers or press dryers in the emissions average; and

(iv) You may not average between different types of pollutants.

(3) The averaged emissions rate from the existing sources participating in the emissions averaging option must not exceed the limits in Table 1 to this subpart at all times the affected units are subject to numeric emission limits following the compliance date specified in §63.8545.

(4)(i) You must demonstrate initial compliance using the maximum process rate and the results of the initial performance tests.

(ii) You must use Equation 9 to demonstrate that the PM or mercury emissions from all existing units participating in the emissions averaging option for that pollutant do not exceed the emission limits in Table 1 to this subpart.

$$ER_i = \sum_{i=1}^n (E_i \times P_{max\ i}) \div \sum_{i=1}^n P_{max\ i} \quad (\text{Eq. 9})$$

Where:

$ER_i$  = Average weighted emissions for PM or mercury, in units of kilograms (pounds) per megagram (ton) of fired product for existing floor tile roller kilns and wall tile roller kilns, greenware fired for existing first-fired sanitaryware tunnel kilns, and first-fire glaze sprayed (dry weight basis) for existing tile glaze lines with glaze spraying and average weighted emissions for PM, in units of kilograms (pounds) per megagram (ton) of first-fire glaze sprayed (dry weight basis) for existing sanitaryware manual, spray machine, or robot glaze applications.

$E_i$  = Emission rate (as determined during the initial compliance demonstration) of PM or mercury from unit  $i$ , in units of kilograms (pounds) per megagram (ton). Determine the emission rate for PM or mercury by performance testing according to Table 4 to this subpart using the applicable equation in §63.8595(f).

$P_{\max i}$  = Maximum process rate for unit  $i$ , in units of megagrams per hour (tons per hour).

$n$  = Number of units participating in the emissions averaging option.

(5) You must develop and submit upon request to the applicable Administrator for review and approval, an implementation plan for emissions averaging according to the following procedures and requirements in paragraphs (h)(5)(i) through (iv) of this section.

(i) If requested, you must submit the implementation plan no later than 180 days before the date that the facility intends to demonstrate compliance using the emissions averaging option.

(ii) You must include the information contained in paragraphs (h)(5)(ii)(A) through (D) of this section in your implementation plan for all emission sources included in an emissions average:

(A) The identification of all existing sources in the averaging group, including for each either the applicable HAP emissions level or the control technology installed and the date on which you are requesting emissions averaging to commence;

(B) The specific control technology or pollution prevention measure to be used for each source in the averaging group and the date of its installation or application. If the pollution

prevention measure reduces or eliminates emissions from multiple sources, the owner or operator must identify each source;

(C) The test plan for the measurement of emissions in accordance with the requirements in §63.8595;

(D) The operating parameters to be monitored for each control system or device consistent with §63.8555 and Table 2 to this subpart, and a description of how the operating limits will be determined;

(iii) If submitted upon request, the Administrator shall review and approve or disapprove the plan according to the following criteria:

(A) Whether the content of the plan includes all of the information specified in paragraph (h)(5)(ii) of this section; and

(B) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

(iv) The applicable Administrator shall not approve an emissions averaging implementation plan containing any of the following provisions:

(A) Any averaging between emissions of differing pollutants or between differing sources; or

(B) The inclusion of any emission source other than an existing unit in the same subcategories.

(i) For each affected source 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.

\* \* \* \* \*

3. Section 63.8620 is amended by:

- a. Redesignating paragraphs (e)(1) through (3) as paragraphs (e)(1)(i) through (iii);
- b. Redesignating paragraph (e) introductory text as paragraph (e)(1) and revising it; and
- c. Adding new paragraph (e)(2) and paragraphs (f) and (g).

The revision and additions read as follows:

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

\* \* \* \* \*

(e)(1) *Visible emissions testing.* You must demonstrate continuous compliance with the operating limits in Table 2 to this subpart for visible emissions (VE) from tunnel or roller kilns that are uncontrolled or equipped with DIFF, DLS/FF, or other dry control device by monitoring VE at each kiln stack according to the requirements in paragraphs (e)(1)(i) through (iii) of this section.

\* \* \* \* \*

(2) *Alternative to VE testing.* You must demonstrate continuous compliance with the operating limits in Table 2 to this subpart for kiln temperature profile for tunnel or roller kilns that are uncontrolled or equipped with DIFF, DLS/FF, or other dry control device by maintaining the kiln operating temperature within the range of acceptable temperatures (*i.e.*, temperature profile) established for each kiln and product. For any incidence where the kiln is operating

outside of its acceptable temperature range (*i.e.*, exceeds its temperature profile) for the product being fired, you must record the incident as a deviation, and perform the necessary corrective action in accordance with your OM&M plan to return the kiln to the acceptable operating temperature for the product being fired. To confirm the kiln has returned to the acceptable temperature range, you will monitor VE at the kiln stack according to the requirements in paragraphs (e)(2)(i) through (iii) of this section.

(i) Perform VE observations at the stack of each kiln operating outside of its temperature profile according to the procedures of Method 22 of 40 CFR part 60, appendix A-7. The duration of each Method 22 test must be at least 15 minutes.

(ii) If VE are observed during any test conducted using Method 22 of 40 CFR part 60, appendix A-7, you must continue to perform corrective action until VE are no longer observed.

(iii) If VE are observed during any test conducted using Method 22 of 40 CFR part 60, appendix A-7, you must report these deviations by following the requirements in §63.8635.

(f) Following the compliance date, you must demonstrate compliance with the emissions averaging provision under this subpart on a continuous basis by meeting the requirements of paragraphs (f)(1) through (3) of this section.

(1)(i) After the initial compliance demonstration described in §63.8595(h)(4), you must demonstrate compliance on a monthly basis determined at the end of every month (12 times per year) according to paragraph (f)(1)(ii) of this section. The first monthly period begins on the compliance date specified in §63.8545.

(ii) For each calendar month, you must use Equation 10 of this section to calculate the average weighted emission rate for that month.

$$ER_i = \sum_{i=1}^n (E_i \times P_{month\ i}) \div \sum_{i=1}^n P_{month\ i} \quad (\text{Eq. 10})$$

Where:

$ER_i$  = Average weighted emissions for PM or mercury, in units of kilograms (pounds) per megagram (ton) of fired product for existing floor tile roller kilns and wall tile roller kilns, greenware fired for existing first-fired sanitaryware tunnel kilns, and first-fire glaze sprayed (dry weight basis) for existing tile glaze lines with glaze spraying and average weighted emissions for PM, in units of kilograms (pounds) per megagram (ton) of first-fire glaze sprayed (dry weight basis) for existing sanitaryware manual, spray machine, or robot glaze applications, for that calendar month.

$E_i$  = Emission rate (as determined during the most recent compliance demonstration) of PM or mercury from unit  $i$ , in units of kilograms (pounds) per megagram (ton). Determine the emission rate for PM or mercury by performance testing according to Table 4 to this subpart using the applicable equation in §63.8595(f).

$P_{month\ i}$  = The process rate for that calendar month for unit  $i$ , in units of megagrams (tons).

$n$  = Number of units participating in the emissions averaging option.

(2) Until 12 monthly weighted average emission rates have been accumulated, calculate and report only the average weighted emission rate determined under paragraph (f)(1)(ii) of this section for each calendar month. After 12 monthly weighted average emission rates have been accumulated, for each subsequent calendar month, use Equation 11 to calculate the 12-month rolling average of the monthly weighted average emission rates for the current calendar month and the previous 11 calendar months.

$$E_{avg} = \sum_{i=1}^n ER_i \div 12 \quad (\text{Eq. 11})$$

Where:

$E_{avg}$  = 12-month rolling average emission rate for PM or mercury, in units of kilograms (pounds) per megagram (ton) of fired product for existing floor tile roller kilns and wall tile roller kilns, greenware fired for existing first-fired sanitaryware tunnel kilns, and first-fire glaze sprayed (dry weight basis) for existing tile glaze lines with glaze spraying and average weighted emissions for PM, in units of kilograms (pounds) per megagram (ton) of first-fire glaze sprayed (dry weight basis) for existing sanitaryware

manual, spray machine, or robot glaze applications.

ER<sub>i</sub> = Monthly weighted average, for calendar month “i,” in units of kilograms (pounds) per megagram (ton), as calculated by paragraph (f)(1)(ii) of this section.

(3) For each existing unit participating in the emissions averaging option, you must comply with the continuous compliance requirements in Table 7 to this subpart.

(g) Any instance where you fail to comply with the continuous monitoring requirements in paragraphs (f)(1) through (3) of this section is a deviation.

\* \* \* \* \*

4. Section 63.8630 is amended by revising paragraph (c) introductory text and adding paragraph (c)(4) to read as follows:

**§63.8630 What notifications must I submit and when?**

\* \* \* \* \*

(c) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 6 to this subpart, your Notification of Compliance Status as specified in Table 9 to this subpart must include the information in paragraphs (c)(1) through (4) of this section.

\* \* \* \* \*

(4) Identification of whether you plan to demonstrate compliance by emissions averaging. If you plan to demonstrate compliance by emissions averaging, report the emissions level that was being achieved or the control technology employed on December 28, 2015.

\* \* \* \* \*

5. Section 63.8635 is amended by:

- a. Revising paragraph (c) introductory text;
- b. Revising paragraph (c)(4)(iii)(C);

- c. Adding paragraph (c)(9); and
- d. Revising paragraph (g)(1).

The revisions and addition read as follows:

**§63.8635 What reports must I submit and when?**

\* \* \* \* \*

(c) The compliance report must contain the information in paragraphs (c)(1) through (9) of this section.

(4) \* \* \*

(iii) \* \* \*

(C) Based on the information recorded under paragraphs (c)(4)(iii)(A) and (B) of this section, compute the annual percent of affected source operating uptime during which the control device was offline for routine maintenance using Equation 12.

$$RM = \frac{DT_p + DT_c}{SU_p + SU_c} (100) \quad (\text{Eq. 12})$$

Where:

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

DT<sub>p</sub> = Control device downtime claimed under the routine control device maintenance alternative standard for the previous semiannual compliance period

DT<sub>c</sub> = Control device downtime claimed under the routine control device maintenance alternative standard for the current semiannual compliance period

SU<sub>p</sub> = Affected source uptime for the previous semiannual compliance period

SU<sub>c</sub> = Affected source uptime for the current semiannual compliance period

\* \* \* \* \*

(9) If you plan to demonstrate compliance by emissions averaging, certify the emissions level achieved or the control technology employed is no less stringent than the level or control technology contained in the notification of compliance status in §63.8630(c)(4), including all necessary documentation to support this certification, such as inputs to Equations 9 through 11.

\* \* \* \* \*

(g) \* \* \*

(1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<https://www.epa.gov/electronicreporting-air-emissions/electronicreporting-tool-ert>) at the time of the test, you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>)). Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

\* \* \* \* \*

6. Section 63.8640 is amended by revising paragraph (c) introductory text and adding paragraph (c)(11) to read as follows:

**§63.8640 What records must I keep?**

\* \* \* \* \*

(c) You must also maintain the records listed in paragraphs (c)(1) through (11) of this section.

\* \* \* \* \*

(11) If you elect to average emissions consistent with §63.8595(h), you must additionally keep a copy of the emissions averaging implementation plan required in §63.8595(h)(5), all calculations required under §63.8595(h), including monthly records of process rate, as applicable, and monitoring records consistent with §63.8620(f).

7. Section 63.8655 is amended by adding definitions for “cooling stack,” “emissions averaging sources,” and “products of combustion (POC) stack,” in alphabetical order to read as follows:

**§63.8665 What definitions apply to this subpart?**

\* \* \* \* \*

*Cooling stack* means a stack (release point) installed on the cooling zone of a tunnel kiln to release air used to cool down the fired product from its maximum temperature to room temperature. A cooling stack does not release any air from the firing zone of the tunnel kiln.

\* \* \* \* \*

*Emissions averaging sources* means, for purposes of the emissions averaging provisions of §63.8595(h), the collection of all existing ceramic tile roller kilns, sanitaryware tunnel kilns,

ceramic tile glaze lines using glaze spraying, and sanitaryware glaze spray booths, within a kiln type and size category and within a subcategory.

\* \* \* \* \*

*Products of combustion (POC) stack* means a stack (release point) installed on the front end of the firing zone of a tunnel kiln to release air used to heat the greenware from room temperature to its maximum temperature.

\* \* \* \* \*

8. Table 1 to subpart KKKKK is revised to read as follows:

**Table 1 to Subpart KKKKK of Part 63--Emission Limits**

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

<b>For each...</b>	<b>You must meet the following emission limits...</b>
1. Collection of all tunnel or roller kilns at facility	HF and HCl emissions must not exceed 62 kilograms per hour (kg/hr) (140 pounds per hour (lb/hr)) HCl equivalent, under the health-based standard, as determined using Equations 4 and 5.
2. Existing floor tile roller kiln	a. PM emissions must not exceed 0.063 kilogram per megagram (kg/Mg) (0.13 pound per ton (lb/ton)) of fired product.
	b. Hg emissions must not exceed 6.3 E-05 kg/Mg (1.3 E-04 lb/ton) of fired product.
	c. Dioxin/furan emissions must not exceed 2.8 nanograms per kilogram (ng/kg) of fired product.
3. Existing wall tile roller kiln	a. PM emissions must not exceed 0.19 kg/Mg (0.37 lb/ton) of fired product.
	b. Hg emissions must not exceed 1.1 E-04 kg/Mg (2.1 E-04 lb/ton) of fired product.
	c. Dioxin/furan emissions must not exceed 0.22 ng/kg of fired product.
4. Existing first-fire sanitaryware tunnel kiln	a. PM emissions must not exceed 0.17 kg/Mg (0.34 lb/ton) of greenware fired.
	b. Hg emissions must not exceed 1.3 E-04 kg/Mg (2.6 E-04 lb/ton) of greenware fired.
	c. Dioxin/furan emissions must not exceed 3.3 ng/kg of greenware fired.
5. Existing tile glaze line with glaze spraying	a. PM emissions must not exceed 0.93 kg/Mg (1.9 lb/ton) of first-fire glaze sprayed (dry weight basis).
	b. Hg emissions must not exceed 8.0 E-05 kg/Mg (1.6 E-04 lb/ton) of first-fire glaze sprayed (dry weight basis).

For each...	You must meet the following emission limits...
6. Existing sanitaryware manual glaze application	PM emissions must not exceed 18 kg/Mg (35 lb/ton) of first-fire glaze sprayed (dry weight basis).
7. Existing sanitaryware spray machine glaze application	PM emissions must not exceed 6.2 kg/Mg (13 lb/ton) of first-fire glaze sprayed (dry weight basis).
8. Existing sanitaryware robot glaze application	PM emissions must not exceed 4.5 kg/Mg (8.9 lb/ton) of first-fire glaze sprayed (dry weight basis).
9. Existing floor tile spray dryer	Dioxin/furan emissions must not exceed 19 ng/kg of throughput processed.
10. Existing wall tile spray dryer	Dioxin/furan emissions must not exceed 0.058 ng/kg of throughput processed.
11. Existing floor tile press dryer	Dioxin/furan emissions must not exceed 0.024 ng/kg of throughput processed.
12. New or reconstructed floor tile roller kiln	a. PM emissions must not exceed 0.019 kg/Mg (0.037 lb/ton) of fired product.
	b. Hg emissions must not exceed 2.0 E-05 kg/Mg (3.9 E-05 lb/ton) of fired product.
	c. Dioxin/furan emissions must not exceed 1.3 ng/kg of fired product.
13. New or reconstructed wall tile roller kiln	a. PM emissions must not exceed 0.19 kg/Mg (0.37 lb/ton) of fired product.
	b. Hg emissions must not exceed 1.1 E-04 kg/Mg (2.1 E-04 lb/ton) of fired product.
	c. Dioxin/furan emissions must not exceed 0.22 ng/kg of fired product.
14. New or reconstructed first-fire sanitaryware tunnel kiln	a. PM emissions must not exceed 0.048 kg/Mg (0.095 lb/ton) of greenware fired.
	b. Hg emissions must not exceed 6.1 E-05 kg/Mg (1.3 E-04 lb/ton) of greenware fired.
	c. Dioxin/furan emissions must not exceed 0.99 ng/kg of greenware fired.
15. New or reconstructed tile glaze line with glaze spraying	a. PM emissions must not exceed 0.31 kg/Mg (0.61 lb/ton) of first-fire glaze sprayed (dry weight basis).
	b. Hg emissions must not exceed 8.0 E-05 kg/Mg (1.6 E-04 lb/ton) of first-fire glaze sprayed (dry weight basis).
16. New or reconstructed sanitaryware manual glaze application	PM emissions must not exceed 2.0 kg/Mg (3.9 lb/ton) of first-fire glaze sprayed (dry weight basis).
17. New or reconstructed sanitaryware spray machine glaze application	PM emissions must not exceed 1.6 kg/Mg (3.2 lb/ton) of first-fire glaze sprayed (dry weight basis).
18. New or reconstructed sanitaryware robot glaze application	PM emissions must not exceed 1.2 kg/Mg (2.3 lb/ton) of first-fire glaze sprayed (dry weight basis).
19. New or reconstructed floor tile spray dryer	Dioxin/furan emissions must not exceed 0.071 ng/kg of throughput processed.
20. New or reconstructed wall tile spray dryer	Dioxin/furan emissions must not exceed 0.058 ng/kg of throughput processed.
21. New or reconstructed floor tile press dryer	Dioxin/furan emissions must not exceed 0.024 ng/kg of throughput processed.

For each...	You must meet the following emission limits...
22. Collection of emissions averaging sources	PM emissions must not exceed the applicable emission limit, under the emissions averaging option, as determined using Equations 9 through 11.
23. Collection of emissions averaging sources	Hg emissions must not exceed the applicable emission limit, under the emissions averaging option, as determined using Equations 9 through 11.

9. Table 2 to subpart KKKKK is revised to read as follows:

**Table 2 to Subpart KKKKK of Part 63--Operating Limits**

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

For each...	You must...	Or you must...
1. Tunnel or roller 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; and	i. Maintain no VE from the DIFF or DLS/FF stack; or
	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 (on a per ton of throughput basis) at or above the level established during the performance test for continuous injection systems in which compliance was demonstrated.	ii. Maintain your kiln operating temperature within the range of acceptable temperatures ( <i>i.e.</i> , temperature profile established for each kiln and product.
2. Tunnel or roller kiln equipped with a WS.	a. Maintain the average scrubber liquid pH for each 3-hour block period at or above the average scrubber liquid pH established during the HF/HCl performance test in which compliance was demonstrated; and	
	b. Maintain the average scrubber liquid flow rate for each 3-hour block period at or above the highest average scrubber liquid flow rate established during the HF/HCl and PM performance tests in which compliance was demonstrated.	
3. Tunnel or roller kiln equipped with an ACI system.	Maintain the 3-hour block average carbon flow rate at or above the highest average carbon flow rate established during the Hg and dioxin/furan performance tests in which compliance was demonstrated.	

4. Tunnel or roller kiln intending to comply with dioxin/furan emission limit without an ACI system.	Maintain the average operating temperature for each 12-hour block period at or below the highest operating temperature established during the dioxin/furan performance test in which compliance was demonstrated.	
5. Tunnel or roller kiln with no add-on control.	a. Maintain no VE from the stack; and	i. Maintain your kiln operating temperature within the range of acceptable temperatures ( <i>i.e.</i> , temperature profile established for each kiln and product.
	b. Maintain the kiln process rate at or below the kiln process rate determined according to §63.8595(g)(1) if your total facility maximum potential HCl-equivalent emissions are greater than the HCl-equivalent limit in Table 1 to this subpart; and	
	c. Maintain the average operating temperature for each 12-hour block period at or below the highest operating temperature established during the dioxin/furan performance test in which compliance was demonstrated.	
6. Glaze spray operation equipped with a 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.	i. Maintain no VE from the FF stack.
7. Glaze spray operation 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 PM performance test in which compliance was demonstrated; and	
	b. 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 PM performance test in which compliance was demonstrated.	
8. Glaze spray operation equipped with a water curtain.	a. Conduct daily inspections to verify the presence of water flow to the wet control system; and	
	b. Conduct annual inspections of the interior of the control equipment (if applicable) to determine the structural integrity and condition of the control equipment.	
9. Glaze spray operation equipped with baffles.	Conduct an annual visual inspection of the baffles to confirm the baffles are in place.	

10. Spray dryer.	Maintain the average operating temperature for each 4-hour block period at or above the average temperature established during the dioxin/furan performance test in which compliance was demonstrated.	
11. Floor tile press dryer.	Maintain the average operating temperature for each 4-hour block period at or below the average temperature established during the dioxin/furan performance test in which compliance was demonstrated.	

10. Table 4 to subpart KKKKK is revised to read as follows:

**Table 4 to Subpart KKKKK of Part 63--Requirements for Performance Tests**

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

For each...	You must...	Using...	According to the following requirements...
1. Tunnel or roller kiln.	a. Select locations of sampling ports and the number of traverse points.	Method 1 or 1A of 40 CFR part 60, appendix A-1.	Sampling sites must be located at the outlet of the APCD and prior to any releases to the atmosphere for all affected sources.
	b. Determine velocities and volumetric flow rate.	Method 2 of 40 CFR part 60, appendix A-1.	You may use Method 2A, 2C, 2D, or 2F of 40 CFR part 60, appendix A-1, or Method 2G of 40 CFR part 60, appendix A-2, as appropriate, as an alternative to using Method 2 of 40 CFR part 60, appendix A-1.
	c. Conduct gas molecular weight analysis.	Method 3 of 40 CFR part 60, appendix A-2.	You may use Method 3A or 3B of 40 CFR part 60, appendix A-2, as appropriate, as an alternative to using Method 3 of 40 CFR part 60, appendix A-2. ANSI/ASME PTC 19.10-1981 (incorporated by reference, see §63.14) may be used as an alternative to the manual procedures (but not the instrumental procedures) in Methods 3A and 3B.
	d. Measure moisture content of the stack gas.	Method 4 of 40 CFR part 60, appendix A-3.	

e. Measure HF and HCl emissions.	i. Method 26A of 40 CFR part 60, appendix A-8; or	You may use Method 26 of 40 CFR part 60, appendix A-8, as an alternative to using Method 26A of 40 CFR part 60, appendix A-8, when no acid PM (e.g., HF or HCl dissolved in water droplets emitted by sources controlled by a WS) is present. ASTM D6735-01 (Reapproved 2009) (incorporated by reference, see §63.14) may be used as an alternative to Methods 26 and 26A.	
	ii. Method 320 of appendix A of this part.	When using Method 320 of appendix A of this part, you must follow the analyte spiking procedures of section 13 of Method 320 of appendix A of this part, unless you can demonstrate that the complete spiking procedure has been conducted at a similar source. ASTM D6348-03 (Reapproved 2010) (incorporated by reference, see §63.14) may be used as an alternative to Method 320 if the test plan preparation and implementation in Annexes A1-A8 are mandatory and the %R in Annex A5 is determined for each target analyte.	
f. Measure PM emissions.	i. Method 5 of 40 CFR part 60, appendix A-3; or		
	ii. Method 29 of 40 CFR part 60, appendix A-8.		
g. Measure Hg emissions.	Method 29 of 40 CFR part 60, appendix A-8.	ASTM D6784-02 (Reapproved 2008) (incorporated by reference, see §63.14) may be used as an alternative to Method 29 (portion for Hg only).	
h. Measure dioxin/furan emissions.	Method 23 of 40 CFR part 60, appendix A-7.		
2. Glaze spray operation.	a. Select locations of sampling ports and the number of traverse points.	Method 1 or 1A of 40 CFR part 60, appendix A-1.	Sampling sites must be located at the outlet of the APCD and prior to any releases to the atmosphere for all affected sources.
	b. Determine velocities and volumetric flow rate.	Method 2 of 40 CFR part 60, appendix A-1.	You may use Method 2A, 2C, 2D, or 2F of 40 CFR part 60, appendix A-1, or Method 2G of 40 CFR part 60, appendix A-2, as appropriate, as an alternative to using Method 2 of 40 CFR part 60, appendix A-1.

	c. Conduct gas molecular weight analysis.	Method 3 of 40 CFR part 60, appendix A-2.	You may use Method 3A or 3B of 40 CFR part 60, appendix A-2, as appropriate, as an alternative to using Method 3 of 40 CFR part 60, appendix A-2. ANSI/ASME PTC 19.10-1981 (incorporated by reference, see §63.14) may be used as an alternative to the manual procedures (but not the instrumental procedures) in Methods 3A and 3B.
	d. Measure moisture content of the stack gas.	Method 4 of 40 CFR part 60, appendix A-3.	
	e. Measure PM emissions.	Method 5 of 40 CFR part 60, appendix A-3.	
	f. Measure Hg emissions (tile glaze spray operations only).	Method 29 of 40 CFR part 60, appendix A-8.	ASTM D6784-02 (Reapproved 2008) (incorporated by reference, see §63.14) may be used as an alternative to Method 29 (portion for Hg only).
3. Spray dryer or floor tile press dryer.	a. Select locations of sampling ports and the number of traverse points.	Method 1 or 1A of 40 CFR part 60, appendix A-1.	Sampling sites must be located at the outlet of the APCD and prior to any releases to the atmosphere for all affected sources.
	b. Determine velocities and volumetric flow rate.	Method 2 of 40 CFR part 60, appendix A-1.	You may use Method 2A, 2C, 2D, or 2F of 40 CFR part 60, appendix A-1, or Method 2G of 40 CFR part 60, appendix A-2, as appropriate, as an alternative to using Method 2 of 40 CFR part 60, appendix A-1.
	c. Conduct gas molecular weight analysis.	Method 3 of 40 CFR part 60, appendix A-2.	You may use Method 3A or 3B of 40 CFR part 60, appendix A-2, as appropriate, as an alternative to using Method 3 of 40 CFR part 60, appendix A-2. ANSI/ASME PTC 19.10-1981 (incorporated by reference, see §63.14) may be used as an alternative to the manual procedures (but not the instrumental procedures) in Methods 3A and 3B.
	d. Measure moisture content of the stack gas.	Method 4 of 40 CFR part 60, appendix A-3.	
	e. Measure dioxin/furan emissions.	Method 23 of 40 CFR part 60, appendix A-7.	

4. Tunnel or roller kiln with no add-on control.	a. Establish the operating limit(s) for kiln process rate if the total facility maximum potential HCl-equivalent emissions are greater than the HCl-equivalent limit in Table 1 to this subpart.	HCl-equivalent limit in Table 1 to this subpart and emissions and production data from the HF/HCl/Cl <sub>2</sub> performance test.	Using the procedures in §63.8595(g)(1), you must determine the maximum process rate(s) for your kiln(s) that would ensure total facility maximum potential HCl-equivalent emissions remain at or below the HCl-equivalent limit in Table 1 to this subpart. The maximum process rate(s) would become your site-specific process rate operating limit(s).
	b. Establish the operating limit for kiln operating temperature.	i. Data from the kiln operating temperature measurement device during the dioxin/furan performance test.	<p>(1) You must continuously measure the kiln operating temperature during three 4-hour test runs and, from a 12-hour block of time consisting of 1-hour increments, calculate the following two values:</p> <p>(a) The standard deviation of the 12 1-hour temperature measurements, calculated as follows:</p> $\sigma = \sqrt{\frac{1}{N} \times \sum_{i=1}^N (x_i - \mu)^2} \quad (\text{Eq. 13})$ <p>Where:</p> <p><math>\sigma</math> = standard deviation  <math>x_i</math> = each 1-hour temperature measurement  <math>\mu</math> = mean of all 12 1-hour measurements  <math>N</math> = 12 measurements</p> <p>(b) 1 percent of the 12-hour block average.</p> <p>(2) You must decide which of the two values would provide the greatest variability (<i>i.e.</i>, the highest value), and then add this value to the 12-hour block average measured during the compliance testing. The result is the maximum temperature at which your kiln may operate during normal operations.</p>
5. Tunnel or roller kiln that is complying with PM and/or Hg production-based emission limits.	Determine the production rate during each PM/Hg test run in order to determine compliance with PM and/or Hg production-based emission limits.	Production data collected during the PM/Hg performance tests ( <i>e.g.</i> , 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 ton of throughput processed basis, of the affected kiln for each of the three test runs.

<p>6. Tunnel or roller kiln equipped with a DIFF or DLS/FF.</p>	<p>Establish the operating limit for the lime feeder setting.</p>	<p>Data from the lime feeder during the HF/HCl performance test.</p>	<p>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, on a per ton of throughput basis, 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. The average of the three test runs establishes your minimum site-specific feed rate operating limit.</p>
<p>7. Tunnel or roller kiln equipped with a WS.</p>	<p>a. Establish the operating limit for the average scrubber liquid pH.</p>	<p>Data from the pH measurement device during the HF/HCl performance test.</p>	<p>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. The average of the three test runs establishes your minimum site-specific liquid pH operating limit.</p>
	<p>b. Establish the operating limit for the average scrubber liquid flow rate.</p>	<p>Data from the flow rate measurement device during the HF/HCl and PM performance tests.</p>	<p>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. The average of the three test runs establishes your minimum site-specific liquid flow rate operating level. If different average wet scrubber liquid flow rate values are measured during the HF/HCl and PM tests, the highest of the average values become your site-specific operating limit.</p>

8. Tunnel or roller kiln equipped with an ACI system.	Establish the operating limit for the average carbon flow rate.	Data from the carbon flow rate measurement conducted during the Hg and dioxin/furan performance tests.	You must measure the carbon flow rate during each test run, determine and record the block average carbon flow rate values for the three test runs, and determine and record the 3-hour block average of the recorded carbon flow rate measurements for the three test runs. The average of the three test runs establishes your minimum site-specific activated carbon flow rate operating limit.
9. Tunnel or roller kiln intending to comply with dioxin/furan emission limit without an ACI system.	a. Establish the operating limit for kiln operating temperature.	i. Data from the kiln operating temperature measurement device during the dioxin/furan performance test.	<p>(1) You must continuously measure the kiln operating temperature during three 4-hour test runs and, from a 12-hour block of time consisting of 1-hour increments, calculate the following two values:</p> <p>(a) The standard deviation of the 12 1-hour temperature measurements, calculated as follows:</p> $\sigma = \sqrt{\frac{1}{N} \times \sum_{i=1}^N (x_i - \mu)^2} \quad (\text{Eq. 14})$ <p>Where:</p> <p><math>\sigma</math> = standard deviation</p> <p><math>x_i</math> = each 1-hour temperature measurement</p> <p><math>\mu</math> = mean of all 12 1-hour measurements</p> <p><math>N</math> = 12 measurements</p> <p>(b) 1 percent of the 12-hour block average.</p> <p>(2) You must decide which of the two values would provide the greatest variability (<i>i.e.</i>, the highest value), and then add this value to the 12-hour block average measured during the compliance testing. The result is the maximum temperature at which your kiln may operate during normal operations.</p>

10. Glaze spray operation equipped with a WS.	a. Establish the operating limit for the average scrubber pressure drop.	Data from the pressure drop measurement device during the PM 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. The average of the three test runs establishes your minimum site-specific pressure drop operating limit.
	b. Establish the operating limit for the average scrubber liquid flow rate.	Data from the flow rate measurement device during the PM 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. The average of the three test runs establishes your minimum site-specific liquid flow rate operating limit.
11. Spray dryer.	Establish the operating limit for operating temperature.	Data from the temperature measurement device during the dioxin/furan performance test.	You must continuously measure the operating temperature, determine and record the block average temperature values for the three test runs, and determine and record the 4-hour block average of the recorded temperature measurements for the three test runs. The average of the three test runs establishes your minimum site-specific operating limit.
12. Floor tile press dryer.	Establish the operating limit for operating temperature.	Data from the temperature measurement device during the dioxin/furan performance test.	You must continuously measure the operating temperature, determine and record the block average temperature values for the three test runs, and determine and record the 4-hour block average of the recorded temperature measurements for the three test runs. The average of the three test runs establishes your maximum site-specific operating limit.

11. Table 6 to subpart KKKKK is revised to read as follows:

**Table 6 to Subpart KKKKK of Part 63--Initial Compliance with Emission Limitations and Work Practice Standards**

As stated in § 63.8605, you must demonstrate initial compliance with each emission limitation and work practice standard that applies to you according to the following table:

For each...	For the following...	You have demonstrated initial compliance if...
1. Collection of all tunnel or roller kilns at the facility.	a. HF, HCl, and Cl <sub>2</sub> emissions must not exceed 62 kg/hr (140 lb/hr) HCl equivalent.	i. You measure HF and HCl emissions for each kiln using Method 26 or 26A of 40 CFR part 60, appendix A-8 or its alternative, ASTM D6735-01 (Reapproved 2009) (incorporated by reference, see §63.14); or Method 320 of appendix A of this part or its alternative, ASTM D6348-03 (Reapproved 2010) (incorporated by reference, see §63.14); and
		ii. You calculate the HCl-equivalent emissions for HF for each kiln using Equation 4 to this subpart; and
		iii. You sum the HCl-equivalent values for all kilns at the facility using Equation 5 to this subpart; and
		iv. The facility total HCl-equivalent does not exceed 62 kg/hr (140 lb/hr).
2. Existing floor tile roller kiln.	a. PM emissions must not exceed 0.063 kg/Mg (0.13 lb/ton) of fired product.	i. The PM emissions measured using Method 5 of 40 CFR part 60, appendix A-3 or Method 29 of 40 CFR part 60, appendix A-8, over the period of the initial performance test, according to the calculations in §63.8595(f)(1), do not exceed 0.063 kg/Mg (0.13 lb/ton) of fired product; and
		ii. You establish and have a record of the applicable operating limits listed in Table 2 to this subpart over the period of the initial performance test during which PM emissions did not exceed 0.063 kg/Mg (0.13 lb/ton) of fired product.
	b. Hg emissions must not exceed 6.3 E-05 kg/Mg (1.3 E-04 lb/ton) of fired product.	i. The Hg emissions measured using Method 29 of 40 CFR part 60, appendix A-8 or its alternative, ASTM D6784-02 (Reapproved 2008) (incorporated by reference, see §63.14), over the period of the initial performance test, do not exceed 6.3 E-05 kg/Mg (1.3 E-04 lb/ton) of fired product; and
		ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which Hg emissions did not exceed 6.3 E-05 kg/Mg (1.3 E-04 lb/ton) of fired product.
	c. Dioxin/furan emissions must not exceed 2.8 ng/kg of fired product.	i. The dioxin/furan emissions measured using Method 23 of 40 CFR part 60, appendix A-7, over the period of the initial performance test, do not exceed 2.8 ng/kg of fired product; and
		ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which dioxin/furan emissions did not exceed 2.8 ng/kg of fired product.

3. Existing wall tile roller kiln.	a. PM emissions must not exceed 0.19 kg/Mg (0.37 lb/ton) of fired product.	i. The PM emissions measured using Method 5 of 40 CFR part 60, appendix A-3 or Method 29 of 40 CFR part 60, appendix A-8, over the period of the initial performance test, according to the calculations in §63.8595(f)(1), do not exceed 0.19 kg/Mg (0.37 lb/ton) of fired product; and
		ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which PM emissions did not exceed 0.19 kg/Mg (0.37 lb/ton) of fired product.
	b. Hg emissions must not exceed 1.1 E-04 kg/Mg (2.1 E-04 lb/ton) of fired product.	i. The Hg emissions measured using Method 29 of 40 CFR part 60, appendix A-8 or its alternative, ASTM D6784-02 (Reapproved 2008) (incorporated by reference, see §63.14), over the period of the initial performance test, do not exceed 1.1 E-04 kg/Mg (2.1 E-04 lb/ton) of fired product; and
		ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which Hg emissions did not exceed 1.1 E-04 kg/Mg (2.1 E-04 lb/ton) of fired product.
	c. Dioxin/furan emissions must not exceed 0.22 ng/kg of fired product.	i. The dioxin/furan emissions measured using Method 23 of 40 CFR part 60, appendix A-7, over the period of the initial performance test, do not exceed 0.22 ng/kg of fired product; and
		ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which dioxin/furan emissions did not exceed 0.22 ng/kg of fired product.
4. Existing first-fire sanitaryware tunnel kiln.	a. PM emissions must not exceed 0.17 kg/Mg (0.34 lb/ton) of greenware fired.	i. The PM emissions measured using Method 5 of 40 CFR part 60, appendix A-3 or Method 29 of 40 CFR part 60, appendix A-8, over the period of the initial performance test, according to the calculations in §63.8595(f)(1), do not exceed 0.17 kg/Mg (0.34 lb/ton) of greenware fired; and
		ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which PM emissions did not exceed 0.17 kg/Mg (0.34 lb/ton) of greenware fired.
	b. Hg emissions must not exceed 1.3 E-04 kg/Mg (2.6 E-04 lb/ton) of greenware fired.	i. The Hg emissions measured using Method 29 of 40 CFR part 60, appendix A-8 or its alternative, ASTM D6784-02 (Reapproved 2008) (incorporated by reference, see §63.14), over the period of the initial performance test, do not exceed 1.3 E-04 kg/Mg (2.6 E-04 lb/ton) of greenware fired; and
		ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which Hg emissions did not exceed 1.3 E-04 kg/Mg (2.6 E-04 lb/ton) of greenware fired.
	c. Dioxin/furan emissions must not exceed 3.3 ng/kg of greenware fired.	i. The dioxin/furan emissions measured using Method 23 of 40 CFR part 60, appendix A-7, over the period of the initial performance test, do not exceed 3.3 ng/kg of greenware fired; and
		ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which dioxin/furan emissions did not exceed 3.3 ng/kg of greenware fired.

		ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which dioxin/furan emissions did not exceed 3.3 ng/kg of greenware fired.
5. Existing tile glaze line with glaze spraying.	a. PM emissions must not exceed 0.93 kg/Mg (1.9 lb/ton) of first-fire glaze sprayed (dry weight basis).	i. The PM emissions measured using Method 5 of 40 CFR part 60, appendix A-3, over the period of the initial performance test, according to the calculations in §63.8595(f)(2), do not exceed 0.93 kg/Mg (1.9 lb/ton) of first-fire glaze sprayed (dry weight basis); and ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which PM emissions did not exceed 0.93 kg/Mg (1.9 lb/ton) of first-fire glaze sprayed (dry weight basis).
	b. Hg emissions must not exceed 8.0 E-05 kg/Mg (1.6 E-04 lb/ton) of first-fire glaze sprayed (dry weight basis).	i. The Hg emissions measured using Method 29 of 40 CFR part 60, appendix A-8 or its alternative, ASTM D6784-02 (Reapproved 2008) (incorporated by reference, see §63.14), over the period of the initial performance test, do not exceed 8.0 E-05 kg/Mg (1.6 E-04 lb/ton) of first-fire glaze sprayed (dry weight basis); and ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which Hg emissions did not exceed 8.0 E-05 kg/Mg (1.6 E-04 lb/ton) of first-fire glaze sprayed (dry weight basis).
6. Existing sanitaryware manual glaze application.	a. PM emissions must not exceed 18 kg/Mg (35 lb/ton) of first-fire glaze sprayed (dry weight basis).	i. The PM emissions measured using Method 5 of 40 CFR part 60, appendix A-3, over the period of the initial performance test, according to the calculations in §63.8595(f)(2), do not exceed 18 kg/Mg (35 lb/ton) of first-fire glaze sprayed (dry weight basis); and ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which PM emissions did not exceed 18 kg/Mg (35 lb/ton) of first-fire glaze sprayed (dry weight basis).
7. Existing sanitaryware spray machine glaze application.	a. PM emissions must not exceed 6.2 kg/Mg (13 lb/ton) of first-fire glaze sprayed (dry weight basis).	i. The PM emissions measured using Method 5 of 40 CFR part 60, appendix A-3, over the period of the initial performance test, according to the calculations in §63.8595(f)(2), do not exceed 6.2 kg/Mg (13 lb/ton) of first-fire glaze sprayed (dry weight basis); and ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which PM emissions did not exceed 6.2 kg/Mg (13 lb/ton) of first-fire glaze sprayed (dry weight basis).
8. Existing sanitaryware robot glaze application.	a. PM emissions must not exceed 4.5 kg/Mg (8.9 lb/ton) of first-fire glaze sprayed (dry weight basis).	i. The PM emissions measured using Method 5 of 40 CFR part 60, appendix A-3, over the period of the initial performance test, according to the calculations in §63.8595(f)(2), do not exceed 4.5 kg/Mg (8.9 lb/ton) of first-fire glaze sprayed (dry weight basis); and

		<p>ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which PM emissions did not exceed 4.5 kg/Mg (8.9 lb/ton) of first-fire glaze sprayed (dry weight basis).</p>
9. Existing floor tile spray dryer.	a. Dioxin/furan emissions must not exceed 19 ng/kg of throughput processed.	<p>i. The dioxin/furan emissions measured using Method 23 of 40 CFR part 60, appendix A-7, over the period of the initial performance test, do not exceed 19 ng/kg of throughput processed; and</p> <p>ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which dioxin/furan emissions did not exceed 19 ng/kg of throughput processed.</p>
10. Existing wall tile spray dryer.	a. Dioxin/furan emissions must not exceed 0.058 ng/kg of throughput processed.	<p>i. The dioxin/furan emissions measured using Method 23 of 40 CFR part 60, appendix A-7, over the period of the initial performance test, do not exceed 0.058 ng/kg of throughput processed; and</p> <p>ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which dioxin/furan emissions did not exceed 0.058 ng/kg of throughput processed.</p>
11. Existing floor tile press dryer.	a. Dioxin/furan emissions must not exceed 0.024 ng/kg of throughput processed.	<p>i. The dioxin/furan emissions measured using Method 23 of 40 CFR part 60, appendix A-7, over the period of the initial performance test, do not exceed 0.024 ng/kg of throughput processed; and</p> <p>ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which dioxin/furan emissions did not exceed 0.024 ng/kg of throughput processed.</p>
12. New or reconstructed floor tile roller kiln.	a. PM emissions must not exceed 0.019 kg/Mg (0.037 lb/ton) of fired product.	<p>i. The PM emissions measured using Method 5 of 40 CFR part 60, appendix A-3 or Method 29 of 40 CFR part 60, appendix A-8, over the period of the initial performance test, according to the calculations in §63.8595(f)(1), do not exceed 0.019 kg/Mg (0.037 lb/ton) of fired product; and</p> <p>ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which PM emissions did not exceed 0.019 kg/Mg (0.037 lb/ton) of fired product.</p>
	b. Hg emissions must not exceed 2.0 E-05 kg/Mg (3.9 E-05 lb/ton) of fired product.	<p>i. The Hg emissions measured using Method 29 of 40 CFR part 60, appendix A-8 or its alternative, ASTM D6784-02 (Reapproved 2008) (incorporated by reference, see §63.14), over the period of the initial performance test, do not exceed 2.0 E-05 kg/Mg (3.9 E-05 lb/ton) of fired product; and</p> <p>ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which Hg emissions did not exceed 2.0 E-05 kg/Mg (3.9 E-05 lb/ton) of fired product.</p>
	c. Dioxin/furan emissions must not exceed 1.3 ng/kg of fired product.	<p>i. The dioxin/furan emissions measured using Method 23 of 40 CFR part 60, appendix A-7, over the period of the initial performance test, do not exceed 1.3 ng/kg of fired product; and</p>

		ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which dioxin/furan emissions did not exceed 1.3 ng/kg of fired product.
13. New or reconstructed wall tile roller kiln.	a. PM emissions must not exceed 0.19 kg/Mg (0.37 lb/ton) of fired product.	i. The PM emissions measured using Method 5 of 40 CFR part 60, appendix A-3 or Method 29 of 40 CFR part 60, appendix A-8, over the period of the initial performance test, according to the calculations in §63.8595(f)(1), do not exceed 0.19 kg/Mg (0.37 lb/ton) of fired product; and ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which PM emissions did not exceed 0.19 kg/Mg (0.37 lb/ton) of fired product.
	b. Hg emissions must not exceed 1.1 E-04 kg/Mg (2.1 E-04 lb/ton) of fired product.	i. The Hg emissions measured using Method 29 of 40 CFR part 60, appendix A-8 or its alternative, ASTM D6784-02 (Reapproved 2008) (incorporated by reference, see §63.14), over the period of the initial performance test, do not exceed 1.1 E-04 kg/Mg (2.1 E-04 lb/ton) of fired product; and ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which Hg emissions did not exceed 1.1 E-04 kg/Mg (2.1 E-04 lb/ton) of fired product.
	c. Dioxin/furan emissions must not exceed 0.22 ng/kg of fired product.	i. The dioxin/furan emissions measured using Method 23 of 40 CFR part 60, appendix A-7, over the period of the initial performance test, do not exceed 0.22 ng/kg of fired product; and ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which dioxin/furan emissions did not exceed 0.22 ng/kg of fired product.
14. New or reconstructed first-fire sanitaryware tunnel kiln.	a. PM emissions must not exceed 0.048 kg/Mg (0.095 lb/ton) of greenware fired.	i. The PM emissions measured using Method 5 of 40 CFR part 60, appendix A-3 or Method 29 of 40 CFR part 60, appendix A-8, over the period of the initial performance test, according to the calculations in §63.8595(f)(1), do not exceed 0.048 kg/Mg (0.095 lb/ton) of greenware fired; and ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which PM emissions did not exceed 0.048 kg/Mg (0.095 lb/ton) of greenware fired.
	b. Hg emissions must not exceed 6.1 E-05 kg/Mg (1.3 E-04 lb/ton) of greenware fired.	i. The Hg emissions measured using Method 29 of 40 CFR part 60, appendix A-8 or its alternative, ASTM D6784-02 (Reapproved 2008) (incorporated by reference, see §63.14), over the period of the initial performance test, do not exceed 6.1 E-05 kg/Mg (1.3 E-04 lb/ton) of greenware fired; and ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which Hg emissions did not exceed 6.1 E-05 kg/Mg (1.3 E-04 lb/ton) of greenware fired.

	c. Dioxin/furan emissions must not exceed 0.99 ng/kg of greenware fired.	<p>i. The dioxin/furan emissions measured using Method 23 of 40 CFR part 60, appendix A-7, over the period of the initial performance test, do not exceed 0.99 ng/kg of greenware fired; and</p> <p>ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which dioxin/furan emissions did not exceed 0.99 ng/kg of greenware fired.</p>
15. New or reconstructed tile glaze line with glaze spraying.	a. PM emissions must not exceed 0.31 kg/Mg (0.61 lb/ton) of first-fire glaze sprayed (dry weight basis).	<p>i. The PM emissions measured using Method 5 of 40 CFR part 60, appendix A-3, over the period of the initial performance test, according to the calculations in §63.8595(f)(2), do not exceed 0.31 kg/Mg (0.61 lb/ton) of first-fire glaze sprayed (dry weight basis); and</p> <p>ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which PM emissions did not exceed 0.31 kg/Mg (0.61 lb/ton) of first-fire glaze sprayed (dry weight basis).</p>
	b. Hg emissions must not exceed 8.0 E-05 kg/Mg (1.6 E-04 lb/ton) of first-fire glaze sprayed (dry weight basis).	<p>i. The Hg emissions measured using Method 29 of 40 CFR part 60, appendix A-8 or its alternative, ASTM D6784-02 (Reapproved 2008) (incorporated by reference, see §63.14), over the period of the initial performance test, do not exceed 8.0 E-05 kg/Mg (1.6 E-04 lb/ton) of first-fire glaze sprayed (dry weight basis); and</p> <p>ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which Hg emissions did not exceed 8.0 E-05 kg/Mg (1.6 E-04 lb/ton) of first-fire glaze sprayed (dry weight basis).</p>
16. New or reconstructed sanitaryware manual glaze application.	a. PM emissions must not exceed 2.0 kg/Mg (3.9 lb/ton) of first-fire glaze sprayed (dry weight basis).	<p>i. The PM emissions measured using Method 5 of 40 CFR part 60, appendix A-3, over the period of the initial performance test, according to the calculations in §63.8595(f)(2), do not exceed 2.0 kg/Mg (3.9 lb/ton) of first-fire glaze sprayed (dry weight basis); and</p> <p>ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which PM emissions did not exceed 2.0 kg/Mg (3.9 lb/ton) of first-fire glaze sprayed (dry weight basis).</p>
17. New or reconstructed sanitaryware spray machine glaze application.	a. PM emissions must not exceed 1.6 kg/Mg (3.2 lb/ton) of first-fire glaze sprayed (dry weight basis).	<p>i. The PM emissions measured using Method 5 of 40 CFR part 60, appendix A-3, over the period of the initial performance test, according to the calculations in §63.8595(f)(2), do not exceed 1.6 kg/Mg (3.2 lb/ton) of first-fire glaze sprayed (dry weight basis); and</p> <p>ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which PM emissions did not exceed 1.6 kg/Mg (3.2 lb/ton) of first-fire glaze sprayed (dry weight basis).</p>

18. New or reconstructed sanitaryware robot glaze application.	a. PM emissions must not exceed 1.2 kg/Mg (2.3 lb/ton) of first-fire glaze sprayed (dry weight basis).	i. The PM emissions measured using Method 5 of 40 CFR part 60, appendix A-3, over the period of the initial performance test, according to the calculations in §63.8595(f)(2), do not exceed 1.2 kg/Mg (2.3 lb/ton) of first-fire glaze sprayed (dry weight basis); and
		ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which PM emissions did not exceed 1.2 kg/Mg (2.3 lb/ton) of first-fire glaze sprayed (dry weight basis).
19. New or reconstructed floor tile spray dryer.	a. Dioxin/furan emissions must not exceed 0.071 ng/kg of throughput processed.	i. The dioxin/furan emissions measured using Method 23 of 40 CFR part 60, appendix A-7, over the period of the initial performance test, do not exceed 0.071 ng/kg of throughput processed; and
		ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which dioxin/furan emissions did not exceed 0.071 ng/kg of throughput processed.
20. New or reconstructed wall tile spray dryer.	a. Dioxin/furan emissions must not exceed 0.058 ng/kg of throughput processed.	i. The dioxin/furan emissions measured using Method 23 of 40 CFR part 60, appendix A-7, over the period of the initial performance test, do not exceed 0.058 ng/kg of throughput processed; and
		ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which dioxin/furan emissions did not exceed 0.058 ng/kg of throughput processed.
21. New or reconstructed floor tile press dryer.	a. Dioxin/furan emissions must not exceed 0.024 ng/kg of throughput processed.	i. The dioxin/furan emissions measured using Method 23 of 40 CFR part 60, appendix A-7, over the period of the initial performance test, do not exceed 0.024 ng/kg of throughput processed; and
		ii. You establish and have a record of the operating limits listed in Table 2 to this subpart over the period of the initial performance test during which dioxin/furan emissions did not exceed 0.024 ng/kg of throughput processed.
22. Existing, new, or reconstructed sanitaryware shuttle kiln.	a. Minimize HAP emissions.	i. Use natural gas, or equivalent, as the kiln fuel; and
		ii. Develop a designed firing time and temperature cycle for the sanitaryware shuttle kiln. You must either program the time and temperature cycle into your kiln or track each step on a log sheet; and
		iii. Label each sanitaryware shuttle kiln with the maximum load (in tons) of greenware that can be fired in the kiln during a single firing cycle; and
		iv. Develop maintenance procedures for each kiln that, at a minimum, specify the frequency of inspection and maintenance of temperature monitoring devices, controls that regulate air-to-fuel ratios, and controls that regulate firing cycles.

12. Table 7 to subpart KKKKK is revised to read as follows:

**Table 7 to Subpart KKKKK of Part 63--Continuous Compliance with Emission Limitations and Work Practice Standards**

As stated in §63.8620, you must demonstrate continuous compliance with each emission limitation and work practice standard that applies to you according to the following table:

For each...	For the following...	You must demonstrate continuous compliance by...	Or by...
1. Tunnel or roller kiln equipped with a DIFF or DLS/FF.	a. Each emission limit in Table 1 to this subpart and each operating limit in Item 1 of Table 2 to this subpart for kilns equipped with DIFF or DLS/FF.	i. If you use a bag leak detection system, as prescribed in §63.8450(e), initiating corrective action within 1 hour of a bag leak detection system alarm and completing corrective actions in accordance with your OM&M plan; operating and maintaining the fabric filter such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period; in calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted; if corrective action is required, each alarm is counted as a minimum of 1 hour; if you take longer than 1 hour to initiate corrective action, the alarm time is counted as the actual amount of time taken by you to initiate corrective action; and	(1) Performing VE observations of the DIFF or DLS/FF stack at the frequency specified in §63.8620(e) using Method 22 of 40 CFR part 60, appendix A-7; and maintaining no VE from the DIFF or DLS/FF stack; or  (2) Maintaining your kiln operating temperature within the range of acceptable temperatures ( <i>i.e.</i> , temperature profile for each kiln and product; for any incidence where the kiln is operating outside of its acceptable temperature range ( <i>i.e.</i> , exceeds its temperature profile) for the product being fired, performing VE observations of the DIFF or DLS/FF stack as specified in §63.8620(e) using Method 22 of 40 CFR part 60, appendix A-7; and observing no VE from the DIFF or DLS/FF stack.
		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 HF/HCl performance test in which compliance was demonstrated.	

2. Tunnel or roller kiln equipped with a WS.	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 WS.	i. 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 HF/HCl performance test in which compliance was demonstrated; and	
		ii. 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 highest average scrubber liquid flow rate established during the HF/HCl and PM performance tests in which compliance was demonstrated.	
3. Tunnel or roller kiln equipped with an ACI system.	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 ACI system.	Collecting the carbon flow rate data according to §63.8600(a); reducing the carbon flow rate data to 3-hour block averages according to §63.8600(a); maintaining the average carbon flow rate for each 3-hour block period at or above the highest average carbon flow rate established during the Hg and dioxin/furan performance tests in which compliance was demonstrated.	
4. Tunnel or roller kiln intending to comply with dioxin/furan emission limit without an ACI system.	Each emission limit in Table 1 to this subpart and each operating limit in Item 4 of Table 2 to this subpart for kilns intending to comply with dioxin/furan emission limit without an ACI system.	Collecting the operating temperature data according to §63.8600(a); and maintaining the operating temperature at or below the highest operating temperature established during the dioxin/furan performance test in which compliance was demonstrated.	Collecting the operating temperature data according to §63.8600(a); reducing the operating temperature data to a 12-hour block average; and maintaining the average operating temperature for each 12-hour block period at or below the highest operating temperature established during the dioxin/furan performance test in which compliance was demonstrated.
5. Tunnel or roller kiln with	a. Each emission limit in Table 1	i. Performing VE observations of the stack at the frequency	(1) Maintaining your kiln operating temperature within the

no add-on control.	to this subpart and each operating limit in Item 5 of Table 2 to this subpart for tunnel or roller kilns with no add-on control.	specified in §63.8620(e) using Method 22 of 40 CFR part 60, appendix A-7; and maintaining no VE from the stack; and	range of acceptable temperatures ( <i>i.e.</i> , temperature profile established for each kiln and product for any incidence where the kiln is operating outside of its acceptable temperature range ( <i>i.e.</i> , exceeds its temperature profile) for the product being fired, performing VE observations of the DIFF or DLS/FF stack as specified in §63.8620(e) using Method 22 of 40 CFR part 60, appendix A-7; and observing no VE from the DIFF or DLS/FF stack.
		ii. If your last calculated total facility maximum potential HCl-equivalent was not at or below the health-based standard in Table 1 to this subpart, collecting the kiln process rate data according to §63.8600(a); reducing the kiln process rate data to 3-hour block averages according to §63.8600(a); maintaining the average kiln process rate for each 3-hour block period at or below the kiln process rate determined according to §63.8595(g)(1); and	
		iii. Collecting the operating temperature data according to §63.8600(a); and maintaining the operating temperature at or below the highest operating temperature established during the dioxin/furan performance test in which compliance was demonstrated.	(1) Collecting the operating temperature data according to §63.8600(a); reducing the operating temperature data to a 12-hour block average; and maintaining the average operating temperature for each 12-hour block period at or below the highest operating temperature established during the dioxin/furan performance test in which compliance was demonstrated.
6. Glaze spray operation equipped with a FF.	Each emission limit in Table 1 to this subpart and each operating limit in Item 6 of Table 2 to this subpart for glaze spray operations equipped with a FF.	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	Performing VE observations of the FF stack at the frequency specified in §63.8620(e) using Method 22 of 40 CFR part 60, appendix A-7; and maintaining no VE from the FF stack.

		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.	
7. Glaze spray operation equipped with a WS.	a. Each emission limit in Table 1 to this subpart and each operating limit in Item 7 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 PM performance test in which compliance was demonstrated; and	
		ii. 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 PM performance test in which compliance was demonstrated.	
8. Glaze spray operation equipped with a water curtain.	a. Each emission limit in Table 1 to this subpart and each operating limit in Item 8 of Table 2 to this subpart for kilns equipped with a water curtain.	i. Conducting daily inspections to verify the presence of water flow to the wet control system; and	
		ii. Conducting annual inspections of the interior of the control equipment (if applicable) to determine the structural integrity and condition of the control equipment; and	
		iii. Recording as deviations any observations of particulates or other impurities getting into the glaze that has been sprayed onto a piece of ware and completing corrective actions in accordance with your OM&M plan.	

9. Glaze spray operation equipped with baffles.	Each emission limit in Table 1 to this subpart and each operating limit in Item 9 of Table 2 to this subpart for kilns equipped with baffles.	Conducting an annual visual inspection of the baffles to confirm the baffles are in place.	
10. Spray dryer.	Each emission limit in Table 1 to this subpart and each operating limit in Item 10 of Table 2 to this subpart for spray dryers.	Collecting the operating temperature data according to §63.8600(a); reducing the operating temperature data to 4-hour block averages according to §63.8600(a); maintaining the average operating temperature for each 4-hour block period at or above the average operating temperature established during the dioxin/furan performance test in which compliance was demonstrated.	
11. Floor tile press dryer.	Each emission limit in Table 1 to this subpart and each operating limit in Item 11 of Table 2 to this subpart for floor tile press dryers.	Collecting the operating temperature data according to §63.8600(a); reducing the operating temperature data to 4-hour block averages according to §63.8600(a); maintaining the average operating temperature for each 4-hour block period at or below the average operating temperature established during the dioxin/furan performance test in which compliance was demonstrated.	
12. Sanitaryware shuttle kiln.	a. Minimize 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); and	

	<p>iv. Using a designed firing time and temperature cycle for each sanitaryware shuttle kiln; and</p>	
	<p>v. For each firing load, documenting the total tonnage of greenware placed in the kiln to ensure that it is not greater than the maximum load identified in Item 1.a.iii of Table 3 to this subpart; and</p>	
	<p>vi. Following maintenance procedures for each kiln that, at a minimum, specify the frequency of inspection and maintenance of temperature monitoring devices, controls that regulate air-to-fuel ratios, and controls that regulate firing cycles; and</p>	
	<p>vii. Developing and maintaining records for each sanitaryware shuttle kiln, as specified in §63.8640.</p>	