

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 60**

[EPA-HQ-OAR-2003-0119; FRL-9991-32-OAR]

RIN 2060-AT84

**Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units; Technical Amendments**

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

**ACTION:** Final rule.

**SUMMARY:** Following requests for clarification of its June 2016 final action, the Environmental Protection Agency (EPA) published proposed amendments to several provisions of the 2016 New Source Performance Standards (NSPS) and Emission Guidelines (EG) for Commercial and Industrial Solid Waste Incineration (CISWI). This action finalizes the proposed amendments, which provide clarity and address implementation issues in the final CISWI NSPS and EG, as well as correcting inconsistencies and errors in these provisions.

**DATES:** This final rule is effective on April 16, 2019. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of February 7, 2013.

**ADDRESSES:** The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2003-0119. 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 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 electronically through <https://www.regulations.gov>, or in hard copy at the EPA Docket Center, WJC West Building, Room Number 3334, 1301 Constitution Ave. NW, Washington, DC. The Public Reading Room hours of operation are 8:30 a.m.

to 4:30 p.m. Eastern Standard Time (EST), Monday through Friday. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Docket Center is (202) 566-1742.

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**SUPPLEMENTARY INFORMATION: Acronyms and Abbreviations.** A number of acronyms and abbreviations are used in this preamble. While this may not be an exhaustive list, to ease the reading of this preamble and for reference purposes, the following terms and acronyms are defined:

- ACI air curtain incinerator
- CAA Clean Air Act
- CEDRI Compliance and Emissions Data Reporting Interface
- CEMS Continuous Emissions Monitoring System
- CFR Code of Federal Regulations
- CISWI Commercial and Industrial Solid Waste Incineration
- CO carbon monoxide
- COMS Continuous Opacity Monitoring System
- CPMS Continuous Parameter Monitoring System
- EG Emission Guidelines
- EPA U.S. Environmental Protection Agency
- ESP electrostatic precipitator
- HCl hydrogen chloride
- Hg mercury
- mg/dscm milligrams per dry standard cubic meter
- NAICS North American Industry Classification System
- NESHAP National Emission Standards for Hazardous Air Pollutants
- NHSM Non-Hazardous Secondary Material(s)
- NSPS New Source Performance Standards
- NTTAA National Technology Transfer and Advancement Act
- OAQPS Office of Air Quality Planning and Standards
- OMB Office of Management and Budget
- PC Portland Cement
- ppmv parts per million by volume
- ppmvd parts per million by dry volume
- RIN Regulatory Information Number
- UMRA Unfunded Mandates Reform Act
- U.S.C. United States Code

**Organization of this Document.** The following outline is provided to aid in locating information in this preamble.

- I. General Information
  - A. Does this action apply to me?
  - B. Where can I get a copy of this document and other related information?
  - C. Judicial Review
- II. Background
  - A. What is the statutory authority for taking this action?
  - B. Background Information
- III. Summary of Final Action
  - A. EG 30-Day Rolling Average Provisions
  - B. Clarification of Operating Parameter Monitoring for a Pollutant's Control When CEMS Are Being Used for Continuous Compliance Demonstration for the Pollutant
- IV. Public Comments
- V. Rationale for Final Amendments to 2016 CISWI Rule
  - A. Discussion of Final Technical Amendments
  - B. Typographical Errors and Corrections
  - C. Environmental, Energy, and Economic Impacts
- VI. Statutory and Executive Order Reviews
  - A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review
  - B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs
  - C. Paperwork Reduction Act (PRA)
  - D. Regulatory Flexibility Act (RFA)
  - E. Unfunded Mandates Reform Act (UMRA)
  - F. Executive Order 13132: Federalism
  - G. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
  - H. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks
  - I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use
  - J. National Technology Transfer and Advancement Act (NTTAA)
  - K. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations
  - L. Congressional Review Act (CRA)

**I. General Information**

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

Categories and entities affected by the final action are those that operate CISWI units. The NSPS and EG, herein after referred to as "standards," for CISWI affect the following categories of sources:

Category	NAICS <sup>1</sup> code	Examples of potentially regulated entities
Any industrial or commercial facility using a solid waste incinerator.	211, 212, 486 .....	Oil and gas exploration operations; Mining, pipeline operators.
	221 .....	Utility providers.

issues raised by industry stakeholders and implementing agencies, as well as to address other issues identified during implementation of the CISWI rule. Provisions affected by the amendments are: (1) Alternative equivalent emission limit for mercury (Hg) for the waste-burning kiln subcategory; (2) timing of initial test and initial performance evaluation; (3) extension of the date by which electronic data reporting requirements must be met; (4) clarification of non-delegated authorities; (5) demonstration of initial and continuous compliance when using a continuous emissions monitoring system (CEMS); (6) continuous opacity monitoring requirements; (7) other CEMS requirements; (8) clarification of skip testing requirements; (9) deviation reporting requirements for continuous monitoring data; and (10) clarification of air curtain incinerator (ACI) requirements. In addition to these provisions, we are also correcting minor typographical errors identified in the rule as noted in section V.B of this preamble.

This final rule provides meaningful burden reduction by providing regulated facilities additional time to complete initial compliance demonstrations and by allowing facilities to comply with production-based emission limits in lieu of the concentration-based limits in the 2016 CISWI rule. Specifically, cement kilns would be allowed to report mercury emissions on a mass-based production basis (pounds per million (lb/MM) ton of clinker) in lieu of reporting on a concentration based limit (milligrams per dry standard cubic meter (mg/dscm)). This alternative provision may result in lower costs for the cement industry by making the format of the mercury emission limits consistent with the Portland Cement NESHAP (PC NESHAP). Further, the rule adds flexibilities in the compliance demonstration process by extending the timeline for performance evaluation tests from 60 days to 180 days and allows facilities to use CEMS for demonstrating initial compliance. These provisions may lower compliance testing costs as stack testing could be avoided if the facilities use CEMS. Moreover, facilities with CEMS will not be required to retest in the event of original stack testing failure.

The EPA is taking final action on all the amendments discussed in the June 15, 2018 (83 FR 28068), proposed rule and also making two additional changes to clarify provisions of the 2016 CISWI rule. A more detailed discussion of the rationale behind the technical

amendments is located in section V.A of this preamble.

#### *A. EG 30-Day Rolling Average Provisions*

A commenter noted that the 30-day rolling average language found in 40 CFR 60.2710(c) was inconsistent with how the averaging period is defined elsewhere in the rule because it contained the additional qualifier "over the previous 30 days of operation." The EPA realizes that units may not necessarily operate continuously, and that valid operating data exclude periods when a unit is not operating. The EPA has removed the phrase "over the previous 30 days of operation" from 40 CFR 60.2710(c) to be consistent with similar provisions elsewhere in the EG and in the NSPS.

#### *B. Clarification of Operating Parameter Monitoring for a Pollutant's Control When CEMS are Being Used for Continuous Compliance Demonstration for the Pollutant*

The EPA is clarifying that continuous operating parameter monitoring is not required when CEMS are used for direct and continuous compliance demonstrations for the pollutant. See section V.A.5 of this preamble for further discussion.

### **IV. Public Comments**

Public comments on the proposed rule and the EPA's responses to these comments are addressed in a separate response to comment document, available in the docket for this action at Docket ID No. EPA-HQ-OAR-2003-0119.

### **V. Rationale for Final Amendments to 2016 CISWI Rule**

#### *A. Discussion of Final Technical Amendments*

This section of the preamble explains the basis for the changes in this final rule.

#### **1. Alternative Equivalent Emission Limit for Hg for the Waste-Burning Kiln Subcategory**

The December 23, 2011, proposed CISWI reconsideration rule preamble discussed and presented equivalent emission limits for waste-burning kilns expressed on a production basis (76 FR 80458). In the February 2013 CISWI final reconsideration rule preamble, the EPA again included these equivalent production-based limits, but at that time the EPA decided not to codify these within the rule text. In the process of approving state plans to implement the CISWI EG, the EPA has recognized that there is a benefit to some affected

sources and implementing agencies in codifying the emission limit for Hg for waste-burning kilns expressed as a production-based limit (*i.e.*, lb/MM ton clinker) as an alternative equivalent standard to the existing concentration-based standard (*i.e.*, mg/dscm), because this is the format of the Hg standards found in the PC NESHAP. The EPA strives to make compliance with both CISWI standards and the PC NESHAP as streamlined and consistent as possible to facilitate compliance with both standards because these sources (and energy recovery units) must comply with the CISWI standard when they are combusting solid waste and must comply with the PC NESHAP or Boiler Maximum Achievable Control Technology standards, as applicable, when combusting nonwaste materials. Having an equivalent emission limit in the same units as the PC NESHAP will, thus, aid affected sources in demonstrating compliance with both standards, and will aid implementing agencies in enforcing the standards.

As discussed in 2011 and repeated in 2013 (78 FR 9122-3, February 7, 2013), the Hg emission limit of 58 lb/MM ton clinker and 21 lb/MM ton clinker for existing and new sources, respectively, are equivalent to the concentration-based Hg standards of 0.011 mg/dscm and 0.0037 mg/dscm within the currently published 2016 CISWI rule. To facilitate use of the equivalent production-based emission limits, the EPA is adding these emission limits to the emission limitation tables, and including recordkeeping, calculation, and reporting requirements for clinker production rate as necessary. The regulatory provisions and calculations being made final are consistent with those found in the PC NESHAP, *see* 40 CFR 63, subpart LLL.

#### **2. Timing of Initial Test and Initial Performance Evaluation**

The current CISWI NSPS and EG (2016 CISWI Rule) require affected sources to conduct a performance evaluation of each continuous monitoring system within 60 days of installation of the monitoring system (see 40 CFR 60.2135 and 60.2700). The rule also allows up to 180 days from the final compliance date for affected sources to conduct an initial performance test. The EPA received questions from implementing agencies asking whether these requirements can be synchronized to prevent duplicate testing requirements because the continuous monitoring system performance evaluation would require an emissions test being conducted at the same time regardless. We recognize that

paragraphs containing the pollutant-specific CEMS requirements, the language was unclear on whether these demonstrations were applicable to demonstrating initial compliance, with the exception of carbon monoxide (CO). The EPA's intent was to allow CEMS for demonstrating initial compliance for any pollutant (*i.e.*, with any of the emission limits of this subpart). To express the EPA's intent of providing this flexibility for compliance demonstration more clearly, we have revised several sections of the rule in this final action. For example, the initial compliance requirements in 40 CFR 60.2135 and 60.2700 have been revised to also reflect use of CEMS data as an initial compliance demonstration alternative to an emissions test, provided that the initial CEMS performance evaluation has been conducted prior to collecting CEMS data used for the initial performance test. Likewise, language surrounding the CEMS requirements found in 40 CFR 60.2145, 60.2165, 60.2710, and 60.2730, and the emission limitation tables, has been revised and streamlined to clarify that CEMS data may be used to demonstrate compliance (*i.e.*, initial and continuing) with the standards.

In addition to clarifying initial compliance demonstrations using CEMS, commenters suggested a similar issue occurs with continuous parametric monitoring requirements for sources that use CEMS to demonstrate compliance for a pollutant. It was not the EPA's intent to require duplicative operating parameter monitoring for pollutants if emissions for the pollutants are directly and continuously monitored using CEMS. Therefore, the EPA has clarified the CEMS requirements in 40 CFR 60.2165 and 40 CFR 60.2730 to indicate that sources using CEMS to monitor for a pollutant are not required to monitor the associated operating parameters unless it is necessary for compliance with the monitoring requirements of another regulated pollutant. This clarification is not removing any monitoring requirements, but only acknowledging that direct pollutant emission measurement with CEMS is a suitable, if not even preferential, alternative to continuous parameter monitoring.

#### 6. Clarification of Continuous Opacity Monitoring System (COMS) Requirements

In addition to the clarifications to CEMS provisions, we are also revising 40 CFR 60.2145(i) and 60.2710(i) to clarify our intent regarding the types of units required to install COMS and to make it consistent with the COMS

monitoring requirement language found in 40 CFR 60.2165(m) and 60.2730(m), respectively. We are adding language clarifying that energy recovery units between 10 and 250 million British thermal units/hour design heat input that are equipped with electrostatic precipitators (ESP), particulate matter CEMS, or particulate matter continuous parameter monitoring systems (CPMS) are not required to additionally install and operate COMS because these units have an air pollution control device that has continuous parameter monitoring requirements or are using continuous particulate matter monitoring compliant with provisions within the rule already (*see* 40 CFR 60.2145(q), for example). The rule currently excludes the COMS requirement for energy recovery units using other types of particulate matter control devices or that use particulate matter CEMS for continuous particulate matter monitoring, but inadvertently omitted ESPs and particulate matter CPMS from the list. Therefore, we are adding "electrostatic precipitator" and "particulate matter CPMS" to the list (that currently includes CO wet scrubbers and fabric filters) found in 40 CFR 60.2165(m) and 60.2730(m) as types of units that do not require COMS. As a further clarification, we are also amending the text to 40 CFR 60.2145(i) and 60.2710(i) to clearly specify that the COMS requirement is applicable to units within the specified size range "that do not use a wet scrubber, fabric filter with bag leak detection system, an electrostatic precipitator, particulate matter CEMS, or particulate matter CPMS."

#### 7. Clarification of Other CEMS Requirements

In addition to the CEMS-related requirements discussed above, the EPA is making two other CEMS-related clarifications in this final rule: (1) To not require CO CEMS for new waste-burning kilns; and (2) to remove outdated notification requirements when particulate matter CEMS are being used. For the CO CEMS issue, the rule as finalized in February 7, 2013, erroneously includes a requirement at 40 CFR 60.2145(j) for new waste-burning kilns to demonstrate compliance with CO emission limits using CEMS. This issue was not corrected in the 2016 final rules and is inconsistent with the requirements found in Table 7 to 40 CFR 60, subpart CCCC, and with the EPA's intent to remove CO CEMS requirements for new CISWI sources, as stated in the February 7, 2013, final CISWI rules (*see* 78 FR 9120). Carbon monoxide CEMS are allowed as an alternative compliance

demonstration, but sources who adopt this alternative are not required to conduct annual testing using EPA Method 10. To make this clarification, the EPA is revising 40 CFR 60.2145(j) to reflect that CO is one of the pollutants for which an annual test is required and removing CO from the list of pollutants requiring CEMS for demonstrating compliance.

Regarding the removal of outdated notification requirements when particulate matter CEMS are used, the EPA is removing the outdated requirements to notify the Administrator prior to beginning and stopping use of an optional particulate matter CEMS. These provisions are 40 CFR 60.2165(n)(1) and (2), and 40 CFR 60.2730(n)(1) and (2). These provisions are an inadvertent holdover from model provisions from a prior rule. CEMS technology and application has progressed to an extent that these notifications are no longer needed or desired by the EPA. Furthermore, these notifications do not appear in the reporting requirements outlined in the reporting requirement tables (Table 4 to 40 CFR part 60, subpart CCCC and Table 3 to 40 CFR part 60, subpart DDDD), nor the other notification requirements, so they introduced an unintended inconsistency within the rule. To resolve this, we are deleting the current subparagraphs (1) and (2) of these sections and renumbering the remaining subparagraphs sequentially to streamline these requirements.

#### 8. Clarification of Reduced Testing Requirements

It has come to the EPA's attention that there is confusion regarding how reduced testing is applied after a source has demonstrated good performance and has skipped testing for 2 years (*see* 40 CFR 60.2155 and 60.2720). Stakeholders suggest that the current CISWI rule language would have a good-performing source return to an annual testing schedule after being able to skip testing for 2 years, with no opportunity for additional reduced testing. It was not the EPA's intent to only offer this allowance once when developing these provisions. To the contrary, the EPA intended this allowance to be available for as long as good performance could be reaffirmed with testing every 3 years instead of annually (*see* 76 FR 15714, March 21, 2011). The intended sequence of testing consisted of two consecutive annual tests showing 75 percent or less of the applicable standard is achieved; followed by 2 years of testing being skipped; followed by an annual test showing that 75 percent of the standard is achieved; followed by 2 years of

the February 7, 2013, final CISWI rule document.

#### 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 Office of Management and Budget (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 that address several implementation issues raised by the stakeholders.

##### 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 regulations and has assigned OMB Control number 2060-0662 for 40 CFR part 60, subpart CCCC, and OMB Control number 2060-0664 for 40 CFR part 60, subpart DDDD. This action is believed to result in no changes to the information collection requirements of the 2016 CISWI rule, so that the information collection estimate of project cost and hour burden from the 2016 CISWI Rule have not been revised.

##### 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 new requirements on any entities because it does not impose any additional regulatory requirements relative to those specified in the 2016 CISWI rule, which also did not impose any additional

regulatory requirements beyond those specified in the February 2013 final CISWI rule. The February 2013 final CISWI rule was certified as not having a significant economic impact on a substantial number of small entities. 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 any 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. The EPA is not aware of any CISWI in Indian country or owned or operated by Indian tribal governments. The CISWI aspects of this rule may, however, invoke minor indirect tribal implications to the extent that entities generating solid wastes on tribal lands could be affected. 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 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 (58 FR 7629, February 16, 1994).

It does not affect the level of protection provided to human health or the environment. The final corrections do not relax the control measures on sources regulated by the 2016 CISWI rule, which also did not relax any control measures on sources regulated by the February 2013 final CISWI rule. Therefore, this final action will not cause emissions increases from these sources. The February 2013 final CISWI rule reduced emissions of all the listed toxics emitted from this source, thereby helping to further ensure against any disproportionately high and adverse human health or environmental effects on minority or low-income populations.

##### 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).

#### List of Subjects in 40 CFR Part 60

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Incorporation by reference.

Dated: March 18, 2019.

Andrew R. Wheeler,  
Administrator.

For the reasons stated in the preamble, the Environmental Protection Agency is amending title 40, chapter I, of the Code of Federal Regulations as follows:

#### PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

- 1. The authority citation for part 60 continues to read as follows:

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

#### § 60.17 [Amended]

- 2. Amend § 60.17 by:

§§ 60.2045 and 60.2050). Other requirements such as the emission limitations and operating limits apply after the CISWI or ACI begins operation.

#### Applicability

##### § 60.2010 Does this subpart apply to my incineration unit?

Yes, this subpart applies if your incineration unit meets all the requirements specified in paragraphs (a) through (c) of this section:

(a) Your incineration unit is a new incineration unit as defined in § 60.2015;

(b) Your incineration unit is a CISWI as defined in § 60.2265, or an ACI as defined in § 60.2265; and

(c) Your incineration unit is not exempt under § 60.2020.

##### § 60.2015 What is a new incineration unit?

(a) A new incineration unit is an incineration unit that meets any of the criteria specified in paragraphs (a)(1) through (3) of this section:

(1) A CISWI or ACI that commenced construction after June 4, 2010;

(2) A CISWI or ACI that commenced reconstruction or modification after August 7, 2013; and

(3) Incinerators and ACIs, as defined in this subpart, that commenced construction after November 30, 1999, but no later than June 4, 2010, or that commenced reconstruction or modification on or after June 1, 2001, but no later than August 7, 2013, are considered new incineration units and remain subject to the applicable requirements of this subpart until the units become subject to the requirements of an approved state plan or federal plan that implements subpart DDDD of this part (Emission Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units).

(b) This subpart does not affect your CISWI or ACI if you make physical or operational changes to your incineration unit primarily to comply with subpart DDDD of this part (Emission Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units). Such changes do not qualify as reconstruction or modification under this subpart.

##### § 60.2020 What combustion units are exempt from this subpart?

This subpart exempts the types of units described in paragraphs (a) through (j) of this section, but some units are required to provide notifications.

(a) *Pathological waste incineration units.* Incineration units burning 90 percent or more by weight (on a

calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste as defined in § 60.2265 are not subject to this subpart if you meet the two requirements specified in paragraphs (a)(1) and (2) of this section:

(1) Notify the Administrator that the unit meets these criteria; and

(2) Keep records on a calendar quarter basis of the weight of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste burned, and the weight of all other fuels and wastes burned in the unit.

(b) *Municipal waste combustion units.* Incineration units that are subject to subpart Ea of this part (Standards of Performance for Municipal Waste Combustors); subpart Eb of this part (Standards of Performance for Large Municipal Waste Combustors); subpart Cb of this part (Emission Guidelines and Compliance Time for Large Municipal Combustors); subpart AAAA of this part (Standards of Performance for Small Municipal Waste Combustion Units); or subpart BBBB of this part (Emission Guidelines for Small Municipal Waste Combustion Units).

(c) *Medical waste incineration units.* Incineration units regulated under subpart Ec of this part (Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996) or subpart Ce of this part (Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators).

(d) *Small power production facilities.* Units that meet the four requirements specified in paragraphs (d)(1) through (4) of this section:

(1) The unit qualifies as a small power-production facility under section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C));

(2) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity;

(3) You submit documentation to the Administrator notifying the EPA that the qualifying small power production facility is combusting homogenous waste; and

(4) You maintain the records specified in § 60.2175(w).

(e) *Cogeneration facilities.* Units that meet the four requirements specified in paragraphs (e)(1) through (4) of this section:

(1) The unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B));

(2) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity and steam or other forms of energy used for industrial, commercial, heating, or cooling purposes;

(3) You submit documentation to the Administrator notifying the Agency that the qualifying cogeneration facility is combusting homogenous waste; and

(4) You maintain the records specified in § 60.2175(x).

(f) *Hazardous waste combustion units.* Units for which you are required to get a permit under section 3005 of the Solid Waste Disposal Act.

(g) *Materials recovery units.* Units that combust waste for the primary purpose of recovering metals, such as primary and secondary smelters.

(h) *Sewage treatment plants.* Incineration units regulated under subpart O of this part (Standards of Performance for Sewage Treatment Plants).

(i) *Sewage sludge incineration units.* Incineration units combusting sewage sludge for the purpose of reducing the volume of the sewage sludge by removing combustible matter that are subject to subpart LLLL of this part (Standards of Performance for New Sewage Sludge Incineration Units) or subpart MMMM of this part (Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units).

(j) *Other solid waste incineration units.* Incineration units that are subject to subpart EEEE of this part (Standards of Performance for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006) or subpart FFFF of this part (Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units That Commenced Construction On or Before December 9, 2004).

##### § 60.2030 Who implements and enforces this subpart?

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

(b) In delegating implementation and enforcement authority of this subpart to

(ix) Applicable federal, state, and local regulations, including Occupational Safety and Health Administration workplace standards;

(x) Pollution prevention; and

(xi) Waste management practices.

(2) An examination designed and administered by the instructor.

(3) Written material covering the training course topics that may serve as reference material following completion of the course.

**§ 60.2075 When must the operator training course be completed?**

The operator training course must be completed by the later of the three dates specified in paragraphs (a) through (c) of this section:

(a) Six months after your CISWI startup;

(b) December 3, 2001; and

(c) The date before an employee assumes responsibility for operating the CISWI or assumes responsibility for supervising the operation of the CISWI.

**§ 60.2080 How do I obtain my operator qualification?**

(a) You must obtain operator qualification by completing a training course that satisfies the criteria under § 60.2070(b).

(b) Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under § 60.2070(c)(2).

**§ 60.2085 How do I maintain my operator qualification?**

To maintain qualification, you must complete an annual review or refresher course covering, at a minimum, the five topics described in paragraphs (a) through (e) of this section:

(a) Update of regulations;

(b) Incinerator operation, including startup and shutdown procedures, waste charging, and ash handling;

(c) Inspection and maintenance;

(d) Prevention and correction of malfunctions or conditions that may lead to malfunction; and

(e) Discussion of operating problems encountered by attendees.

**§ 60.2090 How do I renew my lapsed operator qualification?**

You must renew a lapsed operator qualification by one of the two methods specified in paragraphs (a) and (b) of this section:

(a) For a lapse of less than 3 years, you must complete a standard annual refresher course described in § 60.2085; and

(b) For a lapse of 3 years or more, you must repeat the initial qualification requirements in § 60.2080(a).

**§ 60.2095 What site-specific documentation is required?**

(a) Documentation must be available at the facility and readily accessible for all CISWI operators that addresses the ten topics described in paragraphs (a)(1) through (10) of this section. You must maintain this information and the training records required by paragraph (c) of this section in a manner that they can be readily accessed and are suitable for inspection upon request:

(1) Summary of the applicable standards under this subpart;

(2) Procedures for receiving, handling, and charging waste;

(3) Incinerator startup, shutdown, and malfunction procedures;

(4) Procedures for maintaining proper combustion air supply levels;

(5) Procedures for operating the incinerator and associated air pollution control systems within the standards established under this subpart;

(6) Monitoring procedures for demonstrating compliance with the incinerator operating limits;

(7) Reporting and recordkeeping procedures;

(8) The waste management plan required under §§ 60.2055 through 60.2065;

(9) Procedures for handling ash; and

(10) A list of the wastes burned during the performance test.

(b) You must establish a program for reviewing the information listed in paragraph (a) of this section with each incinerator operator:

(1) The initial review of the information listed in paragraph (a) of this section must be conducted within 6 months after the effective date of this subpart or prior to an employee's assumption of responsibilities for operation of the CISWI, whichever date is later; and

(2) Subsequent annual reviews of the information listed in paragraph (a) of this section must be conducted no later than 12 months following the previous review.

(c) You must also maintain the information specified in paragraphs (c)(1) through (3) of this section:

(1) Records showing the names of CISWI operators who have completed review of the information in § 60.2095(a) as required by § 60.2095(b), including the date of the initial review and all subsequent annual reviews;

(2) Records showing the names of the CISWI operators who have completed the operator training requirements under § 60.2070, met the criteria for qualification under § 60.2080, and maintained or renewed their qualification under § 60.2085 or § 60.2090. Records must include

documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications; and

(3) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

**§ 60.2100 What if all the qualified operators are temporarily not accessible?**

If all qualified operators are temporarily not accessible (i.e., not at the facility and not able to be at the facility within 1 hour), you must meet one of the two criteria specified in paragraphs (a) and (b) of this section, depending on the length of time that a qualified operator is not accessible:

(a) When all qualified operators are not accessible for more than 8 hours, but less than 2 weeks, the CISWI may be operated by other plant personnel familiar with the operation of the CISWI who have completed a review of the information specified in § 60.2095(a) within the past 12 months. However, you must record the period when all qualified operators were not accessible and include this deviation in the annual report as specified under § 60.2210; and

(b) When all qualified operators are not accessible for 2 weeks or more, you must take the two actions that are described in paragraphs (b)(1) and (2) of this section:

(1) Notify the Administrator of this deviation in writing within 10 days. In the notice, state what caused this deviation, what you are doing to ensure that a qualified operator is accessible, and when you anticipate that a qualified operator will be accessible; and

(2) Submit a status report to the Administrator every 4 weeks outlining what you are doing to ensure that a qualified operator is accessible, stating when you anticipate that a qualified operator will be accessible and requesting approval from the Administrator to continue operation of the CISWI. You must submit the first status report 4 weeks after you notify the Administrator of the deviation under paragraph (b)(1) of this section. If the Administrator notifies you that your request to continue operation of the CISWI is disapproved, the CISWI may continue operation for 90 days, then must cease operation. Operation of the unit may resume if you meet the two requirements in paragraphs (b)(2)(i) and (ii) of this section:

(i) A qualified operator is accessible as required under § 60.2070(a); and

(ii) You notify the Administrator that a qualified operator is accessible and that you are resuming operation.

verify an existing or establish a new operating limit after each repeated performance test. You must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test:

(i) Your PM CPMS must provide a 4–20 milliamp output, or digital equivalent, and the establishment of its relationship to manual reference method measurements must be determined in units of milliamps;

(ii) Your PM CPMS operating range must be capable of reading PM concentrations from zero to a level equivalent to at least two times your allowable emission limit. If your PM CPMS is an auto-ranging instrument capable of multiple scales, the primary range of the instrument must be capable of reading PM concentration from zero to a level equivalent to two times your allowable emission limit; and

(iii) During the initial performance test or any such subsequent performance test that demonstrates

compliance with the PM limit, record and average all milliamp output values, or their digital equivalent, from the PM CPMS for the periods corresponding to the compliance test runs (e.g., average all your PM CPMS output values for three corresponding 2-hour Method 5I test runs).

(2) If the average of your three PM performance test runs are below 75 percent of your PM emission limit, you must calculate an operating limit by establishing a relationship of PM CPMS signal to PM concentration using the PM CPMS instrument zero, the average PM CPMS output values corresponding to the three compliance test runs, and the average PM concentration from the Method 5 or performance test with the procedures in (i)(1) through (5) of this section:

(i) Determine your instrument zero output with one of the following procedures:

(A) Zero point data for *in-situ* instruments should be obtained by removing the instrument from the stack

and monitoring ambient air on a test bench;

(B) Zero point data for extractive instruments should be obtained by removing the extractive probe from the stack and drawing in clean ambient air;

(C) The zero point can also be established obtained by performing manual reference method measurements when the flue gas is free of PM emissions or contains very low PM concentrations (e.g., when your process is not operating, but the fans are operating or your source is combusting only natural gas) and plotting these with the compliance data to find the zero intercept; and

(D) If none of the steps in paragraphs (i)(2)(i)(A) through (C) of this section are possible, you must use a zero output value provided by the manufacturer.

(ii) Determine your PM CPMS instrument average in milliamps, or the digital equivalent, and the average of your corresponding three PM compliance test runs, using equation 1:

$$\bar{x} = \frac{1}{n} \sum_{i=1}^n X_i, \bar{y} = \frac{1}{n} \sum_{i=1}^n Y_i$$

(Eq. 1)

Where:

$X_i$  = the PM CPMS output data points for the three runs constituting the performance test,

$Y_i$  = the PM concentration value for the three runs constituting the performance test, and

$n$  = the number of data points.

(iii) With your instrument zero expressed in milliamps, or the digital equivalent, your three run average PM CPMS milliamp value, or its digital equivalent, and your three run average

PM concentration from your three compliance tests, determine a relationship of mg/dscm per milliamp or digital signal equivalent with equation 2:

$$R = \left( \frac{Y_1}{X_1 - z} \right)$$

(Eq. 2)

Where:

$R$  = the relative mg/dscm per milliamp or digital equivalent for your PM CPMS.

$Y_1$  = the three run average mg/dscm PM concentration,

$X_1$  = the three run average milliamp or digital signal output from you PM CPMS, and

$z$  = the milliamp or digital signal equivalent of your instrument zero determined from paragraph (2)(i) of this section.

(iv) Determine your source specific 30-day rolling average operating limit using the mg/dscm per milliamp or

digital value from equation 2 in equation 3, below. This sets your operating limit at the PM CPMS output value corresponding to 75 percent of your emission limit:

$$O_t = z + \frac{0.75(L)}{R}$$

(Eq. 3)

Where:

$O_t$  = the operating limit for your PM CPMS on a 30-day rolling average, in milliamps or their digital signal equivalent,

$L$  = your source emission limit expressed in mg/dscm,

$z$  = your instrument zero in milliamps or the digital equivalent, determined from paragraph (2)(i) of this section, and

20.9 = oxygen concentration in air, percent; and  
 %O<sub>2</sub> = oxygen concentration measured on a dry basis, percent.

(g) You must determine dioxins/furans toxic equivalency by following the procedures in paragraphs (g)(1) through (4) of this section:

(1) Measure the concentration of each dioxin/furan tetra-through octa-chlorinated isomer emitted using EPA Method 23 at 40 CFR part 60, appendix A-7;

(2) Quantify isomers meeting identification criteria 2, 3, 4, and 5 in Section 5.3.2.5 of Method 23, regardless of whether the isomers meet identification criteria 1 and 7. You must quantify the isomers per Section 9.0 of Method 23. (Note: You may reanalyze the sample aliquot or split to reduce the number of isomers not meeting identification criteria 1 or 7 of Section 5.3.2.5.);

(3) For each dioxin/furan (tetra-through octa-chlorinated) isomer measured in accordance with paragraphs (g)(1) and (2) of this section, multiply the isomer concentration by its corresponding toxic equivalency factor specified in table 3 of this subpart; and

(4) Sum the products calculated in accordance with paragraph (g)(3) of this section to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

(h) Method 22 at 40 CFR part 60, appendix A-7 of this part must be used to determine compliance with the fugitive ash emission limit in table 1 of this subpart or tables 5 through 8 of this subpart.

(i) If you have an applicable opacity operating limit, you must determine compliance with the opacity limit using Method 9 at 40 CFR part 60, appendix A-4, based on three 1-hour blocks consisting of ten 6-minute average opacity values, unless you are required to install a continuous opacity monitoring system, consistent with §§ 60.2145 and 60.2165.

(j) You must determine dioxins/furans total mass basis by following the procedures in paragraphs (j)(1) through (3) of this section:

(1) Measure the concentration of each dioxin/furan tetra-through octa-chlorinated isomer emitted using EPA Method 23 at 40 CFR part 60, appendix A-7;

(2) Quantify isomers meeting identification criteria 2, 3, 4, and 5 in Section 5.3.2.5 of Method 23, regardless of whether the isomers meet identification criteria 1 and 7. You must quantify the isomers per Section 9.0 of Method 23. (Note: You may reanalyze the sample aliquot or split to reduce the

number of isomers not meeting identification criteria 1 or 7 of Section 5.3.2.5.); and

(3) Sum the quantities measured in accordance with paragraphs (j)(1) and (2) of this section to obtain the total concentration of dioxins/furans emitted in terms of total mass basis.

#### **§ 60.2130 How are the performance test data used?**

You use results of performance tests to demonstrate compliance with the emission limitations in table 1 of this subpart or tables 5 through 8 of this subpart.

#### **Initial Compliance Requirements**

##### **§ 60.2135 How do I demonstrate initial compliance with the emission limitations and establish the operating limits?**

(a) You must conduct a performance test, as required under §§ 60.2125 and 60.2105 to determine compliance with the emission limitations in table 1 of this subpart or tables 5 through 8 of this subpart, to establish compliance with any opacity operating limit in § 60.2110, to establish the kiln-specific emission limit in § 60.2145(y), as applicable, and to establish operating limits using the procedures in § 60.2110 or § 60.2115. The performance test must be conducted using the test methods listed in table 1 of this subpart or tables 5 through 8 of this subpart and the procedures in § 60.2125. The use of the bypass stack during a performance test shall invalidate the performance test.

(b) As an alternative to conducting a performance test, as required under §§ 60.2125 and 60.2105, you may use a 30-day rolling average of the 1-hour arithmetic average CEMS data, including CEMS data during startup and shutdown as defined in this subpart, to determine compliance with the emission limitations in Table 1 of this subpart or tables 5 through 8 of this subpart. You must conduct a performance evaluation of each continuous monitoring system within 180 days of installation of the monitoring system. The initial performance evaluation must be conducted prior to collecting CEMS data that will be used for the initial compliance demonstration.

##### **§ 60.2140 By what date must I conduct the initial performance test?**

(a) The initial performance test must be conducted within 60 days after your CISWI reaches the charge rate at which it will operate, but no later than 180 days after its initial startup.

(b) If you commence or recommence combusting a solid waste at an existing combustion unit at any commercial or

industrial facility, and you conducted a test consistent with the provisions of this subpart while combusting the solid waste within the 6 months preceding the reintroduction of that solid waste in the combustion chamber, you do not need to retest until 6 months from the date you reintroduce that solid waste.

(c) If you commence or recommence combusting a solid waste at an existing combustion unit at any commercial or industrial facility and you have not conducted a performance test consistent with the provisions of this subpart while combusting the solid waste within the 6 months preceding the reintroduction of that solid waste in the combustion chamber, you must conduct a performance test within 60 days from the date you reintroduce that solid waste.

##### **§ 60.2141 By what date must I conduct the initial air pollution control device inspection?**

(a) The initial air pollution control device inspection must be conducted within 60 days after installation of the control device and the associated CISWI reaches the charge rate at which it will operate, but no later than 180 days after the device's initial startup.

(b) Within 10 operating days following an air pollution control device inspection, all necessary repairs must be completed unless the owner or operator obtains written approval from the state agency establishing a date whereby all necessary repairs of the designated facility must be completed.

#### **Continuous Compliance Requirements**

##### **§ 60.2145 How do I demonstrate continuous compliance with the emission limitations and the operating limits?**

(a) General compliance with standards, considering some units may be able to switch between solid waste and non-waste fuel combustion, is specified in paragraph (a)(1) through (6) of this section.

(1) The emission standards and operating requirements set forth in this subpart apply at all times;

(2) If you cease combusting solid waste, you may opt to remain subject to the provisions of this subpart. Consistent with the definition of CISWI, you are subject to the requirements of this subpart at least 6 months following the last date of solid waste combustion. Solid waste combustion is ceased when solid waste is not in the combustion chamber (*i.e.*, the solid waste feed to the combustor has been cut off for a period of time not less than the solid waste residence time);

(3) If you cease combusting solid waste, you must be in compliance with

sulfur dioxide using CEMS. You must determine compliance with particulate matter using CPMS.

(1) If you monitor compliance with the HCl emissions limit by operating an HCl CEMS, you must do so in accordance with Performance Specification 15 (PS 15) of appendix B to 40 CFR part 60 or PS 18 of appendix B to 40 CFR part 60. You must operate, maintain, and quality assure a HCl CEMS installed and certified under PS 15 according to the quality assurance requirements in Procedure 1 of appendix F to 40 CFR part 60 except that the Relative Accuracy Test Audit requirements of Procedure 1 must be replaced with the validation requirements and criteria of sections 11.1.1 and 12.0 of PS 15. You must operate, maintain and quality assure a HCl CEMS installed and certified under PS 18 according to the quality assurance requirements in Procedure 6 of appendix F to 40 CFR part 60. For any performance specification that you use, you must use Method 321 of appendix A to 40 CFR part 63 as the reference test method for conducting relative accuracy testing. The span value and calibration requirements in paragraphs (j)(1)(i) and (ii) of this section apply to all HCl CEMS used under this subpart:

(i) You must use a measurement span value for any HCl CEMS of 0–10 ppmv unless the monitor is installed on a kiln without an inline raw mill. Kilns without an inline raw mill may use a higher span value sufficient to quantify all expected emissions concentrations. The HCl CEMS data recorder output range must include the full range of expected HCl concentration values which would include those expected during “mill off” conditions. The corresponding data recorder range shall be documented in the site-specific monitoring plan and associated records;

(ii) In order to quality assure data measured above the span value, you must use one of the three options in paragraphs (j)(1)(ii)(A) through (C) of this section:

(A) Include a second span that encompasses the HCl emission concentrations expected to be

encountered during “mill off” conditions. This second span may be rounded to a multiple of 5 ppm of total HCl. The requirements of the appropriate HCl monitor performance specification shall be followed for this second span with the exception that a RATA with the mill off is not required;

(B) Quality assure any data above the span value by proving instrument linearity beyond the span value established in paragraph (j)(1)(i) of this section using the following procedure. Conduct a weekly “above span linearity” calibration challenge of the monitoring system using a reference gas with a certified value greater than your highest expected hourly concentration or greater than 75% of the highest measured hourly concentration. The “above span” reference gas must meet the requirements of the applicable performance specification and must be introduced to the measurement system at the probe. Record and report the results of this procedure as you would for a daily calibration. The “above span linearity” challenge is successful if the value measured by the HCl CEMS falls within 10 percent of the certified value of the reference gas. If the value measured by the HCl CEMS during the above span linearity challenge exceeds 10 percent of the certified value of the reference gas, the monitoring system must be evaluated and repaired and a new “above span linearity” challenge met before returning the HCl CEMS to service, or data above span from the HCl CEMS must be subject to the quality assurance procedures established in (j)(1)(ii)(D) of this section. In this manner values measured by the HCl CEMS during the above span linearity challenge exceeding  $\pm 20$  percent of the certified value of the reference gas must be normalized using equation 6;

(C) Quality assure any data above the span value established in paragraph (j)(1)(i) of this section using the following procedure. Any time two consecutive one-hour average measured concentration of HCl exceeds the span value you must, within 24 hours before or after, introduce a higher, “above span” HCl reference gas standard to the

HCl CEMS. The “above span” reference gas must meet the requirements of the applicable performance specification and target a concentration level between 50 and 150 percent of the highest expected hourly concentration measured during the period of measurements above span, and must be introduced at the probe. While this target represents a desired concentration range that is not always achievable in practice, it is expected that the intent to meet this range is demonstrated by the value of the reference gas. Expected values may include above span calibrations done before or after the above-span measurement period. Record and report the results of this procedure as you would for a daily calibration. The “above span” calibration is successful if the value measured by the HCl CEMS is within 20 percent of the certified value of the reference gas. If the value measured by the HCl CEMS is not within 20 percent of the certified value of the reference gas, then you must normalize the stack gas values measured above span as described in paragraph (j)(1)(ii)(D) of this section. If the “above span” calibration is conducted during the period when measured emissions are above span and there is a failure to collect the one data point in an hour due to the calibration duration, then you must determine the emissions average for that missed hour as the average of hourly averages for the hour preceding the missed hour and the hour following the missed hour. In an hour where an “above span” calibration is being conducted and one or more data points are collected, the emissions average is represented by the average of all valid data points collected in that hour;

(D) In the event that the “above span” calibration is not successful (*i.e.*, the HCl CEMS measured value is not within 20 percent of the certified value of the reference gas), then you must normalize the one-hour average stack gas values measured above the span during the 24-hour period preceding or following the “above span” calibration for reporting based on the HCl CEMS response to the reference gas as shown in equation 6:

$$\frac{\text{Certified reference gas value}}{\text{Measured value of reference gas}} \times \text{Measured stack gas result} = \text{Normalized stack gas result}$$

(Eq. 6)

Only one “above span” calibration is needed per 24-hour period.

(2) Compliance with the mercury emissions limit must be determined using a mercury CEMS or integrated

sorbent trap monitoring system according to the following requirements:

(i) You must operate a mercury CEMS system in accordance with performance specification 12A of 40 CFR part 60, appendix B or an integrated sorbent trap

monitoring system in accordance with performance specification 12B of 40 CFR part 60, appendix B; these monitoring systems must be quality assured according to procedure 5 of 40

precipitator, you must meet the requirements in paragraphs (l) and (p)(1) and (2) of this section:

(1) Install sensors to measure (secondary) voltage and current to the precipitator collection plates; and  
(2) Conduct a performance evaluation of the electric power monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(q) If you have an operating limit that requires the use of a monitoring system to measure sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (l) and (q)(1) and (2) of this section:

(1) Install the system in a position(s) that provides a representative measurement of the total sorbent injection rate; and

(2) Conduct a performance evaluation of the sorbent injection rate monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(r) If you elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate a bag leak detection system as specified in paragraphs (l) and (r)(1) through (5) of this section:

(1) Install a bag leak detection sensor(s) in a position(s) that will be representative of the relative or absolute particulate matter loadings for each exhaust stack, roof vent, or compartment (e.g., for a positive pressure fabric filter) of the fabric filter;

(2) Use a bag leak detection system certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less;

(3) Conduct a performance evaluation of the bag leak detection system in accordance with your monitoring plan and consistent with the guidance provided in EPA-454/R-98-015 (incorporated by reference, see § 60.17);

(4) Use a bag leak detection system equipped with a device to continuously record the output signal from the sensor; and

(5) Use a bag leak detection system equipped with a system that will sound an alarm when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is observed readily by plant operating personnel.

(s) For facilities using a CEMS to demonstrate initial and continuous

compliance with the sulfur dioxide emission limit, compliance with the sulfur dioxide emission limit may be demonstrated by using the CEMS specified in § 60.2165(l) to measure sulfur dioxide. The sulfur dioxide CEMS must follow the procedures and methods specified in paragraph (s) of this section. For sources that have actual inlet emissions less than 100 parts per million dry volume, the relative accuracy criterion for inlet sulfur dioxide CEMS should be no greater than 20 percent of the mean value of the reference method test data in terms of the units of the emission standard, or 5 parts per million dry volume absolute value of the mean difference between the reference method and the CEMS, whichever is greater:

(1) During each relative accuracy test run of the CEMS required by performance specification 2 in appendix B of this part, collect sulfur dioxide and oxygen (or carbon dioxide) data concurrently (or within a 30- to 60-minute period) with both the CEMS and the test methods specified in paragraphs (s)(1)(i) and (ii) of this section:

(i) For sulfur dioxide, EPA Reference Method 6 or 6C, or as an alternative ANSI/ASME PTC 19.10-1981 (incorporated by reference, see § 60.17) must be used; and

(ii) For oxygen (or carbon dioxide), EPA Reference Method 3A or 3B, or as an alternative ANSI/ASME PTC 19.10-1981 (incorporated by reference, see § 60.17), must be used.

(2) The span value of the CEMS at the inlet to the sulfur dioxide control device must be 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the unit subject to this subpart. The span value of the CEMS at the outlet of the sulfur dioxide control device must be 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the unit subject to this subpart.

(3) Conduct accuracy determinations quarterly and calibration drift tests daily in accordance with procedure 1 in appendix F of this part.

(t) For facilities using a CEMS to demonstrate initial and continuous compliance with the nitrogen oxides emission limit, compliance with the nitrogen oxides emission limit may be demonstrated by using the CEMS specified in § 60.2165 to measure nitrogen oxides. The nitrogen oxides CEMS must follow the procedures and methods specified in paragraphs (t)(1) through (4) of this section:

(1) During each relative accuracy test run of the CEMS required by performance specification 2 of appendix B of this part, collect nitrogen oxides

and oxygen (or carbon dioxide) data concurrently (or within a 30- to 60-minute period) with both the CEMS and the test methods specified in paragraphs (t)(1)(i) and (ii) of this section:

(i) For nitrogen oxides, EPA Reference Method 7 or 7E at 40 CFR part 60, appendix A-4 must be used; and

(ii) For oxygen (or carbon dioxide), EPA Reference Method 3A or 3B at 40 CFR part 60, appendix A-3, or as an alternative ANSI/ASME PTC 19-10.1981 (incorporated by reference, see § 60.17), as applicable, must be used.

(2) The span value of the continuous emission monitoring system must be 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of the unit.

(3) Conduct accuracy determinations quarterly and calibration drift tests daily in accordance with procedure 1 in appendix F of this part.

(4) The owner or operator of an affected facility may request that compliance with the nitrogen oxides emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels must be established during the initial performance test according to the procedures and methods specified in paragraphs (t)(4)(i) through (iv) of this section. This relationship may be re-established during performance compliance tests:

(i) The fuel factor equation in Method 3B must be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Method 3A or 3B, or as an alternative ANSI/ASME PTC 19.10-1981 (incorporated by reference, see § 60.17), as applicable, must be used to determine the oxygen concentration at the same location as the carbon dioxide monitor;

(ii) Samples must be taken for at least 30 minutes in each hour;

(iii) Each sample must represent a 1-hour average; and

(iv) A minimum of three runs must be performed.

(u) For facilities using a CEMS or an integrated sorbent trap monitoring system for mercury to demonstrate initial and continuous compliance with any of the emission limits of this subpart, you must complete the following:

(1) Demonstrate compliance with the appropriate emission limit(s) using a 30-day rolling average of 1-hour arithmetic average emission concentrations, including CEMS or integrated sorbent trap monitoring systems data during startup and shutdown as defined in this

the combined emissions are subject to the emission limits applicable to waste-burning kilns. To determine the kiln-

specific emission limit for demonstrating compliance, you must:

(1) Calculate a kiln-specific emission limit using equation 7:

$$C_{ks} = ((\text{Emission limit} \times (Q_{ab} + Q_{cm} + Q_{ks})) - (Q_{ab} \times C_{ab}) - (Q_{cm} \times C_{cm})) / Q_{ks} \quad (\text{Eq. 7})$$

Where:

$C_{ks}$  = Kiln stack concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O<sub>2</sub>.)

$Q_{ab}$  = Alkali bypass flow rate (volume/hr)

$C_{ab}$  = Alkali bypass concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O<sub>2</sub>.)

$Q_{cm}$  = In-line coal mill flow rate (volume/hr)

$C_{cm}$  = In-line coal mill concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O<sub>2</sub>.)

$Q_{ks}$  = Kiln stack flow rate (volume/hr)

(2) Particulate matter concentration must be measured downstream of the in-line coal mill. All other pollutant concentrations must be measured either upstream or downstream of the in-line coal mill; and

(3) For purposes of determining the combined emissions from kilns equipped with an alkali bypass or that exhaust kiln gases to a coal mill that exhausts through a separate stack, instead of installing a CEMS or PM CPMS on the alkali bypass stack or in-line coal mill stack, the results of the initial and subsequent performance test can be used to demonstrate compliance with the relevant emissions limit. A performance test must be conducted on an annual basis (between 11 and 13 calendar months following the previous performance test).

**§ 60.2150 By what date must I conduct the annual performance test?**

You must conduct annual performance tests between 11 and 13 months of the previous performance test.

**§ 60.2151 By what date must I conduct the annual air pollution control device inspection?**

On an annual basis (no more than 12 months following the previous annual air pollution control device inspection), you must complete the air pollution control device inspection as described in § 60.2141.

**§ 60.2155 May I conduct performance testing less often?**

(a) You must conduct annual performance tests according to the schedule specified in § 60.2150, with the following exceptions:

(1) You may conduct a repeat performance test at any time to establish new values for the operating limits, as

specified in § 60.2160. New operating limits become effective on the date that the performance test report is submitted to the EPA's Central Data Exchange or postmarked, per the requirements of § 60.2235(b). The Administrator may request a repeat performance test at any time;

(2) You must repeat the performance test within 60 days of a process change, as defined in § 60.2265;

(3) You can conduct performance tests less often if you meet the following conditions: your performance tests for the pollutant for at least 2 consecutive performance tests demonstrates that the emission level for the pollutant is no greater than the emission level specified in paragraph (a)(3)(i) or (ii) of this section, as applicable; there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions; and you are not required to conduct a performance test for the pollutant in response to a request by the Administrator in paragraph (a)(1) of this section or a process change in paragraph (a)(2) of this section. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test for the pollutant no more than 37 months following the previous performance test for the pollutant. If the emission level for your CISWI continues to meet the emission level specified in paragraph (a)(3)(i) or (ii) of this section, as applicable, you may choose to conduct performance tests for the pollutant every third year, as long as there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions. Each such performance test must be conducted no more than 37 months after the previous performance test.

(i) For particulate matter, hydrogen chloride, mercury, nitrogen oxides, sulfur dioxide, cadmium, lead and dioxins/furans, the emission level equal to 75 percent of the applicable emission limit in table 1 or tables 5 through 8 of this subpart, as applicable; and

(ii) For fugitive emissions, visible emissions (of combustion ash from the ash conveying system) for 2 percent of

the time during each of the three 1-hour observations periods.

(4) If you are conducting less frequent testing for a pollutant as provided in paragraph (a)(3) of this section and a subsequent performance test for the pollutant indicates that your CISWI does not meet the emission level specified in paragraph (a)(3)(i) or (ii) of this section, as applicable, you must conduct annual performance tests for the pollutant according to the schedule specified in paragraph (a) of this section until you qualify for less frequent testing for the pollutant as specified in paragraph (a)(3) of this section.

(b) [Reserved]

**§ 60.2160 May I conduct a repeat performance test to establish new operating limits?**

(a) Yes. You may conduct a repeat performance test at any time to establish new values for the operating limits. The Administrator may request a repeat performance test at any time.

(b) You must repeat the performance test if your feed stream is different than the feed streams used during any performance test used to demonstrate compliance.

**Monitoring**

**§ 60.2165 What monitoring equipment must I install and what parameters must I monitor?**

(a) If you are using a wet scrubber to comply with the emission limitation under § 60.2105, you must install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the value of the operating parameters used to determine compliance with the operating limits listed in table 2 of this subpart. These devices (or methods) must measure and record the values for these operating parameters at the frequencies indicated in table 2 of this subpart at all times except as specified in § 60.2170(a).

(b) If you use a fabric filter to comply with the requirements of this subpart and you do not use a PM CPMS or PM CEMS for monitoring PM compliance, you must install, calibrate, maintain, and continuously operate a bag leak detection system as specified in paragraphs (b)(1) through (8) of this section:

(1) Install, calibrate, maintain, and operate a CEMS for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system. The requirements under performance specification 2 of appendix B of this part, the quality assurance procedure 1 of appendix F of this part and the procedures under § 60.13 must be followed for installation, evaluation, and operation of the CEMS; and

(2) Compliance with the emission limit for nitrogen oxides must be determined based on the 30-day rolling average of the hourly emission concentrations using CEMS outlet data, as outlined in § 60.2145(u).

(l) To demonstrate initial and continuous compliance with the sulfur dioxide emissions limit, a facility may substitute use of a CEMS for the sulfur dioxide initial and annual performance test to demonstrate compliance with the sulfur dioxide emissions limits:

(1) Install, calibrate, maintain, and operate a CEMS for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system. The requirements under performance specification 2 of appendix B of this part, the quality assurance requirements of procedure one of appendix F of this part and procedures under § 60.13 must be followed for installation, evaluation, and operation of the CEMS; and

(2) Compliance with the sulfur dioxide emission limit shall be determined based on the 30-day rolling average of the hourly arithmetic average emission concentrations using CEMS outlet data, as outlined in § 60.2145(u).

(m) For energy recovery units over 10 MMBtu/hr but less than 250 MMBtu/hr annual average heat input rates that do not use a wet scrubber, fabric filter with bag leak detection system, an electrostatic precipitator, particulate matter CEMS, or particulate matter CPMS you must install, operate, certify, and maintain a continuous opacity monitoring system according to the procedures in paragraphs (m)(1) through (5) of this section by the compliance date specified in § 60.2105. Energy recovery units that use a CEMS to demonstrate initial and continuing compliance according to the procedures in § 60.2165(n) are not required to install a continuous opacity monitoring system and must perform the annual performance tests for the opacity consistent with § 60.2145(f):

(1) Install, operate, and maintain each continuous opacity monitoring system according to performance specification 1 of 40 CFR part 60, appendix B;

(2) Conduct a performance evaluation of each continuous opacity monitoring

system according to the requirements in § 60.13 and according to PS-1 of 40 CFR part 60, appendix B;

(3) As specified in § 60.13(e)(1), each continuous opacity monitoring system must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period;

(4) Reduce the continuous opacity monitoring system data as specified in § 60.13(h)(1); and

(5) Determine and record all the 6-minute averages (and 1-hour block averages as applicable) collected.

(n) For coal and liquid/gas energy recovery units, incinerators, and small remote incinerators, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring particulate matter emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who continuously monitors particulate matter emissions instead of conducting performance testing using EPA Method 5 at 40 CFR part 60, appendix A-3 or monitoring with a particulate matter CPMS according to paragraph (r) of this section, must install, calibrate, maintain, and operate a PM CEMS and must comply with the requirements specified in paragraphs (n)(1) through (10) of this section:

(1) The PM CEMS must be installed, evaluated, and operated in accordance with the requirements of performance specification 11 of appendix B of this part and quality assurance requirements of procedure 2 of appendix F of this part and § 60.13. Use Method 5 or Method 5I of appendix A of this part for the PM CEMS correlation testing;

(2) The initial performance evaluation must be completed no later than 180 days after the date of initial startup of the affected facility, as specified under § 60.2125 or within 180 days of notification to the Administrator of use of the continuous monitoring system if the owner or operator was previously determining compliance by Method 5 performance tests, whichever is later;

(3) The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established according to the procedures and methods specified in § 60.2145(t)(4)(i) through (iv);

(4) The owner or operator of an affected facility must conduct an initial performance test for particulate matter

emissions. If PM CEMS are elected for demonstrating compliance, and the initial performance test has not yet been conducted, then initial compliance must be determined by using the CEMS specified in paragraph (n) of this section to measure particulate matter. You must calculate a 30-day rolling average of 1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown, as defined in this subpart, using equation 19-19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A-7;

(5) Continuous compliance with the particulate matter emission limit must be determined based on the 30-day rolling average calculated using equation 19-19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A-7 from the 1-hour arithmetic average CEMS outlet data;

(6) At a minimum, valid continuous monitoring system hourly averages must be obtained as specified in § 60.2170(e);

(7) The 1-hour arithmetic averages required under paragraph (n)(5) of this section must be expressed in milligrams per dry standard cubic meter corrected to 7 percent oxygen (dry basis) and must be used to calculate the 30-day rolling average emission concentrations. CEMS data during startup and shutdown, as defined in this subpart, are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The 1-hour arithmetic averages must be calculated using the data points required under § 60.13(e)(2);

(8) All valid CEMS data must be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (n)(6) of this section are not met.

(9) The CEMS must be operated according to performance specification 11 in appendix B of this part; and,

(10) Quarterly and yearly accuracy audits and daily drift, system optics, and sample volume checks must be performed in accordance with procedure 2 in appendix F of this part.

(o) To demonstrate initial and continuous compliance with the carbon monoxide emissions limit, you may substitute use of a CEMS for the carbon monoxide initial and annual performance test:

(1) Install, calibrate, maintain, and operate a CEMS for measuring carbon monoxide emissions discharged to the atmosphere and record the output of the system. The requirements under performance specification 4A or 4B of appendix B of this part, the quality assurance procedure 1 of appendix F of this part and the procedures under § 60.13 must be followed for

limits established during the hydrogen chloride performance test.

(f) If you are required to monitor clinker production because you comply with the production-rate based mercury limit for your waste-burning kiln, you must:

(1) Determine hourly clinker production by one of two methods:

(i) Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates in tons-mass per hour of the amount of clinker produced. The system of measuring hourly clinker production must be maintained within  $\pm 5$  percent accuracy, or

(ii) Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates in tons-mass per hour of the amount of feed to the kiln. The system of measuring feed must be maintained within  $\pm 5$  percent accuracy. Calculate your hourly clinker production rate using a kiln-specific feed to clinker ratio based on reconciled clinker production determined for accounting purposes and recorded feed rates. Update this ratio monthly. Note that if this ratio changes at clinker reconciliation, you must use the new ratio going forward, but you do not have to retroactively change clinker production rates previously estimated.

(2) Determine the accuracy of the system of measuring hourly clinker production (or feed mass flow if applicable) before the effective date and during each quarter of source operation.

(3) Conduct accuracy checks in accordance with the procedures outlined in your site-specific monitoring plan under § 60.2145(l).

**§ 60.2170 Is there a minimum amount of monitoring data I must obtain?**

For each continuous monitoring system required or optionally allowed under § 60.2165, you must collect data according to this section:

(a) You must operate the monitoring system and collect data at all required intervals at all times compliance is required except for periods of monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods (as specified in 60.2210(o)), and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments). A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or

careless operation are not malfunctions. You are required to effect monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable;

(b) You may not use data recorded during monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. You must use all the data collected during all other periods, including data normalized for above scale readings, in assessing the operation of the control device and associated control system; and

(c) Except for periods of monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments, failure to collect required data is a deviation of the monitoring requirements.

**Recordkeeping and Reporting**

**§ 60.2175 What records must I keep?**

You must maintain the items (as applicable) as specified in paragraphs (a), (b), and (e) through (x) of this section for a period of at least 5 years:

(a) Calendar date of each record; and

(b) Records of the data described in paragraphs (b)(1) through (7) of this section:

(1) The CISWI charge dates, times, weights, and hourly charge rates;

(2) Liquor flow rate to the wet scrubber inlet every 15 minutes of operation, as applicable;

(3) Pressure drop across the wet scrubber system every 15 minutes of operation or amperage to the wet scrubber every 15 minutes of operation, as applicable;

(4) Liquor pH as introduced to the wet scrubber every 15 minutes of operation, as applicable;

(5) For affected CISWIs that establish operating limits for controls other than wet scrubbers under § 60.2110(d) through (g) or § 60.2115, you must maintain data collected for all operating parameters used to determine compliance with the operating limits. For energy recovery units using activated carbon injection or a dry scrubber, you must also maintain records of the load fraction and

corresponding sorbent injection rate records;

(6) If a fabric filter is used to comply with the emission limitations, you must record the date, time, and duration of each alarm and the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of operating time during each 6-month period that the alarm sounds, calculated as specified in § 60.2110(c);

(7) If you monitor clinker production in accordance with § 60.2165(t):

(i) Hourly clinker rate produced if clinker production is measured directly;

(ii) Hourly measured kiln feed rates and calculated clinker production rates if clinker production is not measured directly;

(iii) 30-day rolling averages for mercury in pounds per million tons of clinker produced;

(iv) The initial and quarterly accuracy of the system of measuring hourly clinker production (or feed mass flow).

(c)-(d) [Reserved]

(e) Identification of calendar dates and times for which data show a deviation from the operating limits in table 2 of this subpart or a deviation from other operating limits established under § 60.2110(d) through (g) or § 60.2115 with a description of the deviations, reasons for such deviations, and a description of corrective actions taken;

(f) The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and/or to establish operating limits, as applicable. Retain a copy of the complete test report including calculations;

(g) All documentation produced as a result of the siting requirements of §§ 60.2045 and 60.2050;

(h) Records showing the names of CISWI operators who have completed review of the information in § 60.2095(a) as required by § 60.2095(b), including the date of the initial review and all subsequent annual reviews;

(i) Records showing the names of the CISWI operators who have completed the operator training requirements under § 60.2070, met the criteria for qualification under § 60.2080, and maintained or renewed their qualification under § 60.2085 or § 60.2090. Records must include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications;

(j) For each qualified operator, the phone and/or pager number at which

**§ 60.2210 What information must I include in my annual report?**

The annual report required under § 60.2205 must include the items listed in paragraphs (a) through (o) of this section. If you have a deviation from the operating limits or the emission limitations, you must also submit deviation reports as specified in §§ 60.2215, 60.2220, and 60.2225:

- (a) Company name and address;
- (b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report;
- (c) Date of report and beginning and ending dates of the reporting period;
- (d) The values for the operating limits established pursuant to § 60.2110 or § 60.2115;
- (e) If no deviation from any emission limitation or operating limit that applies to you has been reported, a statement that there was no deviation from the emission limitations or operating limits during the reporting period;
- (f) The highest recorded 3-hour average and the lowest recorded 3-hour average (30-day average for energy recovery units), as applicable, for each operating parameter recorded for the calendar year being reported;
- (g) Information recorded under § 60.2175(b)(6) and (c) through (e) for the calendar year being reported;
- (h) For each performance test conducted during the reporting period, if any performance test is conducted, the process unit(s) tested, the pollutant(s) tested and the date that such performance test was conducted. Submit, following the procedure specified in § 60.2235(b)(1), the performance test report no later than the date that you submit the annual report;
- (i) If you met the requirements of § 60.2155(a) or (b), and did not conduct a performance test during the reporting period, you must state that you met the requirements of § 60.2155(a) or (b), and, therefore, you were not required to conduct a performance test during the reporting period;
- (j) Documentation of periods when all qualified CISWI operators were unavailable for more than 8 hours, but less than 2 weeks;
- (k) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and that caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize

emissions in accordance with § 60.11(d), including actions taken to correct a malfunction;

(l) For each deviation from an emission or operating limitation that occurs for a CISWI for which you are not using a continuous monitoring system to comply with the emission or operating limitations in this subpart, the annual report must contain the following information:

- (1) The total operating time of the CISWI at which the deviation occurred during the reporting period; and
- (2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
- (m) If there were periods during which the continuous monitoring system, including the CEMS, was out of control as specified in paragraph (o) of this section, the annual report must contain the following information for each deviation from an emission or operating limitation occurring for a CISWI for which you are using a continuous monitoring system to comply with the emission and operating limitations in this subpart:
  - (1) The date and time that each malfunction started and stopped;
  - (2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks;
  - (3) The date, time, and duration that each continuous monitoring system was out-of-control, including start and end dates and hours and descriptions of corrective actions taken;
  - (4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period;
  - (5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period;
  - (6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes;
  - (7) A summary of the total duration of continuous monitoring system downtime during the reporting period, and the total duration of continuous monitoring system downtime as a percent of the total operating time of the CISWI at which the continuous monitoring system downtime occurred during that reporting period;
  - (8) An identification of each parameter and pollutant that was monitored at the CISWI;

(9) A brief description of the CISWI;

(10) A brief description of the continuous monitoring system;

(11) The date of the latest continuous monitoring system certification or audit; and

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

(n) If there were periods during which the continuous monitoring system, including the CEMS, was not out of control as specified in paragraph (o) of this section, a statement that there were not periods during which the continuous monitoring system was out of control during the reporting period.

(o) A continuous monitoring system is out of control in accordance with the procedure in 40 CFR part 60, appendix F of this part, as if any of the following occur:

- (1) The zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard;
- (2) The continuous monitoring system fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; and
- (3) The continuous opacity monitoring system calibration drift exceeds two times the limit in the applicable performance specification in the relevant standard.

**§ 60.2215 What else must I report if I have a deviation from the operating limits or the emission limitations?**

(a) You must submit a deviation report if any recorded 3-hour average (30-day average for energy recovery units or for PM CPMS) parameter level is above the maximum operating limit or below the minimum operating limit established under this subpart, if the bag leak detection system alarm sounds for more than 5 percent of the operating time for the 6-month reporting period, if a performance test was conducted that deviated from any emission limitation, if a 30-day average measured using CEMS deviated from any emission limitation.

(b) The deviation report must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data you collected during the second half of the calendar year (July 1 to December 31).

evaluation, you must submit the results of the performance evaluation to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT or an alternate file format consistent with the XML schema listed on the EPA's ERT website. If you claim that some of the performance evaluation information being submitted is 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 storage media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/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; and

(ii) For any performance evaluations of continuous monitoring systems measuring RATA pollutants that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the evaluation, you must submit the results of the performance evaluation to the Administrator at the appropriate address listed in § 60.4.

(c) If you are required to electronically submit a report through the Compliance and Emissions Data Reporting Interface (CEDRI) in the EPA's Central Data Exchange (CDX), and due to a planned or actual outage of either the EPA's CEDRI or CDX systems within the period of time beginning 5 business days prior to the date that the submission is due, you will be or are precluded from accessing CEDRI or CDX and submitting a required report within the time prescribed, you may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description identifying the date, time and length of the outage; a rationale for attributing the delay in reporting beyond the regulatory deadline to the EPA system outage; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which

you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(d) If you are required to electronically submit a report through CEDRI in the EPA's CDX and a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning 5 business days prior to the date the submission is due, the owner or operator may assert a claim of force majeure for failure to timely comply with the reporting requirement. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage). If you intend to assert a claim of force majeure, you must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs. The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

**§ 60.2240 Can reporting dates be changed?**

If the Administrator agrees, you may change the semiannual or annual reporting dates. See § 60.19(c) for

procedures to seek approval to change your reporting date.

**Title V Operating Permits**

**§ 60.2242 Am I required to apply for and obtain a Title V operating permit for my unit?**

Yes. Each CISWI and ACI subject to standards under this subpart must operate pursuant to a permit issued under Section 129(e) and Title V of the Clean Air Act.

**Air Curtain Incinerators (ACIs)**

**§ 60.2245 What is an air curtain incinerator?**

(a) An ACI operates by forcefully projecting a curtain of air across an open chamber or open pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor. Air curtain incinerators are not to be confused with conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.

(b) Air curtain incinerators that burn only the materials listed in paragraphs (b)(1) through (3) of this section are only required to meet the requirements under § 60.2242 and under "Air Curtain Incinerators" (§§ 60.2245 through 60.2260):

- (1) 100 percent wood waste;
- (2) 100 percent clean lumber; and
- (3) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

**§ 60.2250 What are the emission limitations for air curtain incinerators?**

Within 60 days after your ACI reaches the charge rate at which it will operate, but no later than 180 days after its initial startup, you must meet the two limitations specified in paragraphs (a) and (b) of this section:

(a) Maintain opacity to less than or equal to 10 percent opacity (as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values), except as described in paragraph (b) of this section; and

(b) Maintain opacity to less than or equal to 35 percent opacity (as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values) during the startup period that is within the first 30 minutes of operation.

**§ 60.2255 How must I monitor opacity for air curtain incinerators?**

(a) Use Method 9 of appendix A of this part to determine compliance with the opacity limitation.

catalyst metals that are reclaimed and reused as catalysts or used to produce commercial grade catalysts;

(5) Units burning only coke to produce purified carbon monoxide that is used as an intermediate in the production of other chemical compounds;

(6) Units burning only hydrocarbon liquids or solids to produce hydrogen, carbon monoxide, synthesis gas, or other gases for use in other manufacturing processes; and

(7) Units burning only photographic film to recover silver.

**Chemotherapeutic waste** means waste material resulting from the production or use of antineoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

**Clean lumber** means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Clean lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote.

**Commercial and industrial solid waste incineration unit (CISWI)** means any distinct operating unit of any commercial or industrial facility that combusts, or has combusted in the preceding 6 months, any solid waste as that term is defined in 40 CFR part 241. If the operating unit burns materials other than traditional fuels as defined in § 241.2 that have been discarded, and you do not keep and produce records as required by § 60.2175(v), the operating unit is a CISWI. While not all CISWIs will include all of the following components, a CISWI includes, but is not limited to, the solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The CISWI does not include air pollution control equipment or the stack. The CISWI boundary starts at the solid waste hopper (if applicable) and extends through two areas: The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and the combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. The CISWI includes all ash handling systems connected to the bottom ash handling system.

**Contained gaseous material** means gases that are in a container when that container is combusted.

**Continuous emission monitoring system (CEMS)** means the total equipment that may be required to meet

the data acquisition and availability requirements of this subpart, used to sample, condition (if applicable), analyze, and provide a record of emissions.

**Continuous monitoring system (CMS)** means the total equipment, required under the emission monitoring sections in applicable subparts, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters. A particulate matter continuous parameter monitoring system (PM CPMS) is a type of CMS.

**Cyclonic burn barrel** means a combustion device for waste materials that is attached to a 55 gallon, open-head drum. The device consists of a lid, which fits onto and encloses the drum, and a blower that forces combustion air into the drum in a cyclonic manner to enhance the mixing of waste material and air. A cyclonic burn barrel is not an incinerator, a waste-burning kiln, an energy recovery unit or a small, remote incinerator under this subpart.

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

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation, operating limit, or operator qualification and accessibility requirements; and

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

**Dioxins/furans** means tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans.

**Discard** means, for purposes of this subpart and 40 CFR part 60, subpart DDDD, only, burned in an incineration unit without energy recovery.

**Drum reclamation unit** means a unit that burns residues out of drums (e.g., 55 gallon drums) so that the drums can be reused.

**Dry scrubber** means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems in fluidized bed boilers and process heaters are included in this definition. A dry scrubber is a dry control system.

**Energy recovery** means the process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating.

**Energy recovery unit** means a combustion unit combusting solid waste (as that term is defined by the Administrator in 40 CFR part 241) for energy recovery. Energy recovery units include units that would be considered boilers and process heaters if they did not combust solid waste.

**Energy recovery unit designed to burn biomass (Biomass)** means an energy recovery unit that burns solid waste, biomass, and non-coal solid materials but less than 10 percent coal, on a heat input basis on an annual average, either alone or in combination with liquid waste, liquid fuel or gaseous fuels.

**Energy recovery unit designed to burn coal (Coal)** means an energy recovery unit that burns solid waste and at least 10 percent coal on a heat input basis on an annual average, either alone or in combination with liquid waste, liquid fuel or gaseous fuels.

**Energy recovery unit designed to burn liquid waste materials and gas (Liquid/gas)** means an energy recovery unit that burns a liquid waste with liquid or gaseous fuels not combined with any solid fuel or waste materials.

**Energy recovery unit designed to burn solid materials (Solids)** includes energy recovery units designed to burn coal and energy recovery units designed to burn biomass.

**Fabric filter** means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.

**Foundry sand thermal reclamation unit** means a type of part reclamation unit that removes coatings that are on foundry sand. A foundry sand thermal reclamation unit is not an incinerator, a waste-burning kiln, an energy recovery unit or a small, remote incinerator under this subpart.

**Incinerator** means any furnace used in the process of combusting solid waste (as that term is defined by the Administrator in 40 CFR part 241) for the purpose of reducing the volume of the waste by removing combustible matter. Incinerator designs include single chamber and two-chamber.

**In-line coal mill** means those coal mills using kiln exhaust gases in their process. Coal mills with a heat source other than the kiln or coal mills using exhaust gases from the clinker cooler alone are not an in-line coal mill.

**In-line kiln/row mill** means a system in a Portland Cement production process where a dry kiln system is integrated with the raw mill so that all or a portion of the kiln exhaust gases are used to perform the drying operation of the raw mill, with no auxiliary heat source used. In this system the kiln is

during the grinding operation. If the raw mill is used to remove moisture from feed materials, it is also, by definition, a raw material dryer. The raw mill also includes the air separator associated with the raw mill.

*Reconstruction* means rebuilding a CISWI and meeting two criteria:

(1) The reconstruction begins on or after August 7, 2013; and

(2) The cumulative cost of the construction over the life of the incineration unit exceeds 50 percent of the original cost of building and installing the CISWI (not including land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI used to calculate these costs, see the definition of CISWI.

*Refuse-derived fuel* means a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel including two fuels:

(1) Low-density fluff refuse-derived fuel through densified refuse-derived fuel; and

(2) Pelletized refuse-derived fuel.

*Responsible official* means one of the following:

(1) For a corporation: A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representatives is approved in advance by the permitting authority;

(2) For a partnership or sole proprietorship: A general partner or the proprietor, respectively;

(3) For a municipality, state, federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA); or

(4) For affected facilities:

(i) The designated representative in so far as actions, standards, requirements, or prohibitions under Title IV of the Clean Air Act or the regulations promulgated thereunder are concerned; or

(ii) The designated representative for any other purposes under part 60.

*Shutdown* means, for incinerators and small, remote incinerators, the period of time after all waste has been combusted in the primary chamber.

*Small, remote incinerator* means an incinerator that combusts solid waste (as that term is defined by the Administrator in 40 CFR part 241) and combusts 3 tons per day or less solid waste and is more than 25 miles driving distance to the nearest municipal solid waste landfill.

*Soil treatment unit* means a unit that thermally treats petroleum-contaminated soils for the sole purpose of site remediation. A soil treatment unit may be direct-fired or indirect fired. A soil treatment unit is not an incinerator, a waste-burning kiln, an energy recovery unit or a small, remote incinerator under this subpart.

*Solid waste* means the term solid waste as defined in 40 CFR 241.2.

*Solid waste incineration unit* means a distinct operating unit of any facility which combusts any solid waste (as that term is defined by the Administrator in 40 CFR part 241) material from commercial or industrial establishments or the general public (including single and multiple residences, hotels and motels). Such term does not include incinerators or other units required to have a permit under section 3005 of the Solid Waste Disposal Act. The term "solid waste incineration unit" does not include:

(1) Materials recovery facilities (including primary or secondary smelters) which combust waste for the primary purpose of recovering metals;

(2) Qualifying small power production facilities, as defined in section 3(17)(C) of the Federal Power Act (16 U.S.C. 769(17)(C)), or qualifying cogeneration facilities, as defined in section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)), which burn homogeneous waste (such as units which burn tires or used oil, but not including refuse-derived fuel) for the production of electric energy or in the case of qualifying cogeneration facilities which burn homogeneous waste for the production of electric energy and steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating or cooling purposes; or

(3) Air curtain incinerators provided that such incinerators only burn wood wastes, yard wastes, and clean lumber and that such ACIs comply with opacity limitations to be established by the Administrator by rule.

*Space heater* means a unit that meets the requirements of 40 CFR 279.23. A space heater is not an incinerator, a waste-burning kiln, an energy recovery unit or a small, remote incinerator under this subpart.

*Standard conditions*, when referring to units of measure, means a temperature of 68 °F (20 °C) and a pressure of 1 atmosphere (101.3 kilopascals).

*Startup period* means, for incinerators and small, remote incinerators, the period of time between the activation of the system and the first charge to the unit.

*Useful thermal energy* means energy (i.e., steam, hot water, or process heat) that meets the minimum operating temperature and/or pressure required by any energy use system that uses energy provided by the affected energy recovery unit.

*Waste-burning kiln* means a kiln that is heated, in whole or in part, by combusting solid waste (as that term is defined by the Administrator in 40 CFR part 241). Secondary materials used in Portland cement kilns shall not be deemed to be combusted unless they are introduced into the flame zone in the hot end of the kiln or mixed with the precalciner fuel.

*Wet scrubber* means an add-on air pollution control device that uses an aqueous or alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

*Wood waste* means untreated wood and untreated wood products, including tree stumps (whole or chipped), trees, tree limbs (whole or chipped), bark, sawdust, chips, scraps, slabs, millings, and shavings. Wood waste does not include:

(1) Grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands;

(2) Construction, renovation, or demolition wastes; and

(3) Clean lumber.

TABLE 4 TO SUBPART CCCC OF PART 60—SUMMARY OF REPORTING REQUIREMENTS <sup>1</sup>

Report	Due date	Contents	Reference
Preconstruction report .....	Prior to commencing construction .....	<ul style="list-style-type: none"> <li>• Statement of intent to construct .....</li> <li>• Anticipated date of commencement of construction.</li> <li>• Documentation for siting requirements ..</li> <li>• Waste management plan .....</li> <li>• Anticipated date of initial startup.</li> </ul>	§ 60.2190.
Startup notification .....	Prior to initial startup .....	<ul style="list-style-type: none"> <li>• Type of waste to be burned .....</li> <li>• Maximum design waste burning capacity.</li> <li>• Anticipated maximum charge rate .....</li> <li>• If applicable, the petition for site-specific operating limits.</li> </ul>	§ 60.2195.
Initial test report .....	No later than 60 days following the initial performance test.	<ul style="list-style-type: none"> <li>• Complete test report for the initial performance test.</li> <li>• The values for the site-specific operating limits.</li> <li>• Installation of bag leak detection system for fabric filter.</li> </ul>	§ 60.2200.
Annual report .....	No later than 12 months following the submission of the initial test report. Subsequent reports are to be submitted no more than 12 months following the previous report.	<ul style="list-style-type: none"> <li>• Name and address .....</li> <li>• Statement and signature by responsible official.</li> <li>• Date of report .....</li> <li>• Values for the operating limits .....</li> <li>• Highest recorded 3-hour average and the lowest 3-hour average, as applicable, (or 30-day average, if applicable) for each operating parameter recorded for the calendar year being reported.</li> <li>• For each performance test conducted during the reporting period, if any performance test is conducted, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted.</li> <li>• If a performance test was not conducted during the reporting period, a statement that the requirements of § 60.2155(a) were met.</li> <li>• Documentation of periods when all qualified CISWI operators were unavailable for more than 8 hours but less than 2 weeks.</li> <li>• If you are conducting performance tests once every 3 years consistent with § 60.2155(a), the date of the last 2 performance tests, a comparison of the emission level you achieved in the last 2 performance tests to the 75 percent emission limit threshold required in § 60.2155(a) and a statement as to whether there have been any operational changes since the last performance test that could increase emissions.</li> <li>• Any malfunction, deviation, or continuous monitoring system out of control periods information as specified in § 60.2210(k) through (o).</li> </ul>	§§ 60.2205 and 60.2210.
Emission limitation or operating limit deviation report.	By August 1 of that year for data collected during the first half of the calendar year. By February 1 of the following year for data collected during the second half of the calendar year.	<ul style="list-style-type: none"> <li>• Dates and times of deviation .....</li> <li>• Averaged and recorded data for those dates.</li> <li>• Duration and causes of each deviation and the corrective actions taken.</li> <li>• Copy of operating limit monitoring data and, if any performance test was conducted that documents emission levels, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted.</li> <li>• Dates, times and causes for monitor downtime incidents.</li> </ul>	§ 60.2215 and 60.2220.

**TABLE 6 TO SUBPART CCCC OF PART 60—EMISSION LIMITATIONS FOR ENERGY RECOVERY UNITS THAT COMMENCED CONSTRUCTION AFTER JUNE 4, 2010, OR THAT COMMENCED RECONSTRUCTION OR MODIFICATION AFTER AUGUST 7, 2013**

For the air pollutant	You must meet this emission limitation <sup>1</sup>		Using this averaging time <sup>2</sup>	And determining compliance using this method <sup>2</sup>
	Liquid/gas	Solids		
Cadmium .....	0.023 milligrams per dry standard cubic meter.	Biomass-0.0014 milligrams per dry standard cubic meter. Coal-0.0017 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters per run).	Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish.
Carbon monoxide .....	35 parts per million dry volume	Biomass-240 parts per million dry volume. Coal-95 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 10 at 40 CFR part 60, appendix A-4).
Dioxin/furans (Total Mass Basis).	No Total Mass Basis limit, must meet the toxic equivalency basis limit below.	Biomass-0.52 nanograms per dry standard cubic meter. Coal-5.1 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 23 at 40 CFR part 60, appendix A-7).
Dioxins/furans (toxic equivalency basis).	0.093 nanograms per dry standard cubic meter.	Biomass-0.076 nanograms per dry standard cubic meter <sup>3</sup> . Coal-0.075 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters per run).	Performance test (Method 23 of appendix A-7 of this part).
Fugitive ash .....	Visible emissions for no more than 5 percent of the hourly observation period.	Three 1-hour observation periods.	Visible emission test (Method 22 at 40 CFR part 60, appendix A-7).	Fugitive ash.
Hydrogen chloride .....	14 parts per million dry volume	Biomass-0.20 parts per million dry volume. Coal-58 parts per million dry volume.	3-run average (For Method 26, collect a minimum volume of 360 liters per run. For Method 26A, collect a minimum volume of 3 dry standard cubic meters per run).	Performance test (Method 26 or 26A at 40 CFR part 60, appendix A-8).
Lead .....	0.096 milligrams per dry standard cubic meter.	Biomass-0.014 milligrams per dry standard cubic meter. Coal-0.057 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters per run).	Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish.
Mercury .....	0.00056 milligrams per dry standard cubic meter.	Biomass-0.0022 milligrams per dry standard cubic meter. Coal-0.013 milligrams per dry standard cubic meter.	3-run average (collect enough volume to meet an in-stack detection limit data quality objective of 0.03 ug/dscm).	Performance test (Method 29 or 30B at 40 CFR part 60, appendix A-8) or ASTM D6784-02 (Reapproved 2008). <sup>3</sup>
Nitrogen oxides .....	76 parts per million dry volume	Biomass-290 parts per million dry volume. Coal-460 parts per million dry volume.	3-run average (for Method 7E, 1 hour minimum sample time per run).	Performance test (Method 7 or 7E at 40 CFR part 60, appendix A-4).
Particulate matter (filterable).	110 milligrams per dry standard cubic meter.	Biomass-5.1 milligrams per dry standard cubic meter. Coal-130 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter per run).	Performance test (Method 5 or 29 at 40 CFR part 60, appendix A-3 or appendix A-8) if the unit has an annual average heat input rate less than 250 MMBtu/hr; or PM CPMS (as specified in § 60.2145(x)) if the unit has an annual average heat input rate equal to or greater than 250 MMBtu/hr.
Sulfur dioxide .....	720 parts per million dry volume.	Biomass-7.3 parts per million dry volume. Coal-850 parts per million dry volume.	3-run average (for Method 6, collect a minimum of 60 liters, for Method 6C, 1 hour minimum sample time per run).	Performance test (Method 6 or 6C at 40 CFR part 60, appendix A-4).

<sup>1</sup> All emission limitations are measured at 7 percent oxygen, dry basis at standard conditions. For dioxins/furans, you must meet either the Total Mass Basis limit or the toxic equivalency basis limit.  
<sup>2</sup> In lieu of performance testing, you may use a CEMS or, for mercury, an integrated sorbent trap monitoring system to demonstrate initial and continuing compliance with an emissions limit, as long as you comply with the CEMS or integrated sorbent trap monitoring system requirements applicable to the specific pollutant in §§ 60.2145 and 60.2165. As prescribed in § 60.2145(u), if you use a CEMS or an integrated sorbent trap monitoring system to demonstrate compliance with an emissions limit, your averaging time is a 30-day rolling average of 1-hour arithmetic average emission concentrations.  
<sup>3</sup> Incorporated by reference, see § 60.17.

**TABLE 7 TO SUBPART CCCC OF PART 60—EMISSION LIMITATIONS FOR WASTE-BURNING KILNS THAT COMMENCED CONSTRUCTION AFTER JUNE 4, 2010, OR RECONSTRUCTION OR MODIFICATION AFTER AUGUST 7, 2013**

For the air pollutant	You must meet this emission limitation <sup>1</sup>	Using this averaging time <sup>2</sup>	And determining compliance using this method <sup>2,3</sup>
Cadmium .....	0.0014 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters per run).	Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish.
Carbon monoxide .....	90 (long kilns)/190 (pre-heater/precalciner) parts per million dry volume.	3-run average (1 hour minimum sample time per run) .....	Performance test (Method 10 at 40 CFR part 60, appendix A-4).
Dioxins/furans (total mass basis).	0.51 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters per run).	Performance test (Method 23 at 40 CFR part 60, appendix A-7).
Dioxins/furans (toxic equivalency basis).	0.075 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 23 at 40 CFR part 60, appendix A-7).