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Title 40: Protection of Environment
PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart CCCC—Standards of Performance for Commercial and Industrial Solid Waste Incineration Units

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Contents

INTRODUCTION

§ 60.2000 What does this subpart do?
§ 60.2005 When does this subpart become effective?

APPLICABILITY

§ 60.2010 Does this subpart apply to my incineration unit?
§ 60.2015 What is a new incineration unit?
§ 60.2020 What combustion units are exempt from this subpart?
§ 60.2030 Who implements and enforces this subpart?
§ 60.2035 How are these new source performance standards structured?
§ 60.2040 Do all eleven components of these new source performance standards apply at the same time?

PRECONSTRUCTION SITING ANALYSIS

§ 60.2045 Who must prepare a siting analysis?
§ 60.2050 What is a siting analysis?

WASTE MANAGEMENT PLAN

§ 60.2055 What is a waste management plan?
§ 60.2060 When must I submit my waste management plan?
§ 60.2065 What should I include in my waste management plan?

OPERATOR TRAINING AND QUALIFICATION

§ 60.2070 What are the operator training and qualification requirements?
§ 60.2075 When must the operator training course be completed?
§ 60.2080 How do I obtain my operator qualification?
§ 60.2085 How do I maintain my operator qualification?
§ 60.2090 How do I renew my lapsed operator qualification?
§ 60.2095 What site-specific documentation is required?
§ 60.2100 What if all the qualified operators are temporarily not accessible?

EMISSION LIMITATIONS AND OPERATING LIMITS

§ 60.2105 What emission limitations must I meet and by when?
§ 60.2110 What operating limits must I meet and by when?
§ 60.2115 What if I do not use a wet scrubber, fabric filter, activated carbon injection, selective

noncatalytic reduction, or an electrostatic precipitator to comply with the emission limitations?
§ 60.2120 Affirmative Defense for Exceedance of an Emission Limit During Malfunction.

PERFORMANCE TESTING

§ 60.2125 How do I conduct the initial and annual performance test?
§ 60.2130 How are the performance test data used?

INITIAL COMPLIANCE REQUIREMENTS

§ 60.2135 How do I demonstrate initial compliance with the emission limitations and establish the operating limits?
§ 60.2140 By what date must I conduct the initial performance test?
§ 60.2141 By what date must I conduct the initial air pollution control device inspection?

CONTINUOUS COMPLIANCE REQUIREMENTS

§ 60.2145 How do I demonstrate continuous compliance with the emission limitations and the operating limits?
§ 60.2150 By what date must I conduct the annual performance test?
§ 60.2151 By what date must I conduct the annual air pollution control device inspection?
§ 60.2155 May I conduct performance testing less often?
§ 60.2160 May I conduct a repeat performance test to establish new operating limits?

MONITORING

§ 60.2165 What monitoring equipment must I install and what parameters must I monitor?
§ 60.2170 Is there a minimum amount of monitoring data I must obtain?

RECORDKEEPING AND REPORTING

§ 60.2175 What records must I keep?
§ 60.2180 Where and in what format must I keep my records?
§ 60.2185 What reports must I submit?
§ 60.2190 What must I submit prior to commencing construction?
§ 60.2195 What information must I submit prior to initial startup?
§ 60.2200 What information must I submit following my initial performance test?
§ 60.2205 When must I submit my annual report?
§ 60.2210 What information must I include in my annual report?
§ 60.2215 What else must I report if I have a deviation from the operating limits or the emission limitations?
§ 60.2220 What must I include in the deviation report?
§ 60.2225 What else must I report if I have a deviation from the requirement to have a qualified operator accessible?
§ 60.2230 Are there any other notifications or reports that I must submit?
§ 60.2235 In what form can I submit my reports?
§ 60.2240 Can reporting dates be changed?

TITLE V OPERATING PERMITS

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

AIR CURTAIN INCINERATORS

§ 60.2245 What is an air curtain incinerator?
§ 60.2250 What are the emission limitations for air curtain incinerators?
§ 60.2255 How must I monitor opacity for air curtain incinerators?
§ 60.2260 What are the recordkeeping and reporting requirements for air curtain incinerators?

DEFINITIONS

§ 60.2265 What definitions must I know?
Table 1 to Subpart CCCC of Part 60—Emission Limitations
Table 2 to Subpart CCCC of Part 60—Operating Limits for Wet Scrubbers
Table 3 to Subpart CCCC of Part 60—Toxic Equivalency Factors
Table 4 to Subpart CCCC of Part 60—Summary of Reporting Requirements [a]
Table 5 to Subpart CCCC of Part 60—Emission Limitations for Incinerators That Commenced Construction After June 4, 2010, or That Commenced Reconstruction or Modification After September 21, 2011
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 September 21, 2011
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 September 21, 2011
Table 8 to Subpart CCCC of Part 60—Emission Limitations for Small, Remote Incinerators That Commenced Construction After June 4, 2010, or That Commenced Reconstruction or Modification After September 21, 2011

SOURCE: 65 FR 75350, Dec. 1, 2000, unless otherwise noted.

Introduction

§ 60.2000 What does this subpart do?

This subpart establishes new source performance standards for commercial and industrial solid waste incineration (CISWI) units.

§ 60.2005 When does this subpart become effective?

Link to an amendment published at 78 FR 9178, Feb. 7, 2013.

This subpart takes effect on September 21, 2011. Some of the requirements in this subpart apply to planning the CISWI unit (*i.e.,* the preconstruction requirements in §§ 60.2045 and 60.2050). Other requirements such as the emission limitations and operating limits apply after the CISWI unit begins operation.

[76 FR 15750, Mar. 21, 2011]

Applicability

§ 60.2010 Does this subpart apply to my incineration unit?

Yes, 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 unit as defined in § 60.2265.

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

§ 60.2015 What is a new incineration unit?

Link to an amendment published at 78 FR 9178, Feb. 7, 2013.

(a) A new incineration unit is an incineration unit that meets any of the criteria specified in paragraph (a)(1) through (a)(2) of this section.

(1) A commercial and industrial solid waste incineration unit that commenced construction after May 20, 2011.

(2) A commercial and industrial solid waste incineration unit that commenced reconstruction or modification after September 21, 2011.

(b) This subpart does not affect your CISWI unit if you make physical or operational changes to your incineration unit primarily to comply with the EG in 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.

[76 FR 15450, Mar. 21, 2011]

§ 60.2020 What combustion units are exempt from this subpart?

Link to an amendment published at 78 FR 9178, Feb. 7, 2013.

This subpart exempts the types of units described in paragraphs (a), (c) through (i) and (n) of this section, but some units are required to provide notifications. Air curtain incinerators are exempt from the requirements in this subpart except for the provisions in §§ 60.2242, 60.2250, and 60.2260.

(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.

(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) [Reserved]

(c) *Municipal waste combustion units.* Incineration units that are regulated under 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).

(d) *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).

(e) *Small power production facilities.* Units that meet the three requirements specified in paragraphs (e)(1) through (3) 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 a request to the Administrator for a determination that the qualifying cogeneration facility is combusting homogenous waste as that term is defined in § 60.2265. The request must include information sufficient to document that the unit meets the criteria of the definition of a small power production facility and that the waste material the unit is proposed to burn is homogeneous.

(f) *Cogeneration facilities.* Units that meet the three requirements specified in paragraphs (f)(1) through (3) 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 a request to the Administrator for a determination that the qualifying cogeneration facility is combusting homogenous waste as that term is defined in § 60.2265. The request must include information sufficient to document that the unit meets the criteria of the definition of a cogeneration facility and that the waste material the unit is combusting is homogeneous.

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

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

(i) *Air curtain incinerators.* Air curtain incinerators that burn only the materials listed in paragraphs (i)(1) through (3) of this section are only required to meet the requirements under “Air Curtain Incinerators” (§§ 60.2245 through 60.2260).

(1) 100 percent wood waste.

(2) 100 percent clean lumber.

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

(j)-(l) [Reserved]

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

(n) *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 Sewage Sludge Incineration Units) or subpart MMMM of this part (Emission Guidelines for Sewage Sludge Incineration Units). Sewage sludge incineration unit designs include fluidized bed and multiple hearth.

(o) *Laboratory Analysis Units.* Units that burn samples of materials for the purpose of chemical or physical analysis.

[65 FR 75350, Dec. 1, 2000, as amended at 76 FR 15450, Mar. 21, 2011]

§ 60.2030 Who implements and enforces this subpart?

Link to an amendment published at 78 FR 9179, Feb. 7, 2013.

(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 a State, local, or tribal agency, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to state, local, or tribal agencies are specified in paragraphs (c)(1) through (4) and (c)(6) through (10) of this section.

(1) Approval of alternatives to the emission limitations in table 1 of this subpart and operating limits established under § 60.2110.

(2) Approval of major alternatives to test methods.

(3) Approval of major alternatives to monitoring.

(4) Approval of major alternatives to recordkeeping and reporting.

(5) [Reserved]

(6) The requirements in § 60.2115.

(7) The requirements in § 60.2100(b)(2).

(8) Approval of alternative opacity emission limits in § 60.2105 under § 60.11(e)(6) through (e)(8).

(9) Performance test and data reduction waivers under § 60.2125(j), 60.8(b)(4) and (5).

(10) Determination of whether a qualifying small power production facility or cogeneration facility under § 60.2020(e) or (f) is combusting homogenous waste as that term is defined in § 60.2265.

[65 FR 75350, Dec. 1, 2000, as amended at 76 FR 15451, Mar. 21, 2011]

§ 60.2035 How are these new source performance standards structured?

These new source performance standards contain the eleven major components listed in paragraphs (a) through (k) of this section.

(a) Preconstruction siting analysis.

(b) Waste management plan.

(c) Operator training and qualification.

(d) Emission limitations and operating limits.

(e) Performance testing.

(f) Initial compliance requirements.

(g) Continuous compliance requirements.

(h) Monitoring.

(i) Recordkeeping and reporting.

(j) Definitions.

(k) Tables.

§ 60.2040 Do all eleven components of these new source performance standards apply at the same time?

No. You must meet the preconstruction siting analysis and waste management plan requirements before you commence construction of the CISWI unit. The operator training and qualification, emission limitations, operating limits, performance testing and compliance, monitoring, and most recordkeeping and reporting requirements are met after the CISWI unit begins operation.

Preconstruction Siting Analysis

§ 60.2045 Who must prepare a siting analysis?

Link to an amendment published at 78 FR 9179, Feb. 7, 2013.

(a) You must prepare a siting analysis if you plan to commence construction of an incinerator after December 1, 2000.

(b) You must prepare a siting analysis for CISWI units that commenced construction after June 4, 2010, or that commenced reconstruction or modification after September 21, 2011.

(c) You must prepare a siting analysis if you are required to submit an initial application for a construction permit under 40 CFR part 51, subpart I, or 40 CFR part 52, as applicable, for the reconstruction or modification of your CISWI unit.

[76 FR 15451, Mar. 21, 2011]

§ 60.2050 What is a siting analysis?

(a) The siting analysis must consider air pollution control alternatives that minimize, on a site-specific basis, to the maximum extent practicable, potential risks to public health or the environment. In considering such alternatives, the analysis may consider costs, energy impacts, nonair environmental impacts, or any other factors related to the practicability of the alternatives.

(b) Analyses of your CISWI unit's impacts that are prepared to comply with State, local, or other Federal regulatory requirements may be used to satisfy the requirements of this section, provided they include the consideration of air pollution control alternatives specified in paragraph (a) of this section.

(c) You must complete and submit the siting requirements of this section as required under § 60.2190(c) prior to commencing construction.

Waste Management Plan

§ 60.2055 What is a waste management plan?

A waste management plan is a written plan that identifies both the feasibility and the methods used to reduce or separate certain components of solid waste from the waste stream in order to reduce or eliminate toxic emissions from incinerated waste.

§ 60.2060 When must I submit my waste management plan?

You must submit a waste management plan prior to commencing construction.

§ 60.2065 What should I include in my waste management plan?

A waste management plan must include consideration of the reduction or separation of waste-stream elements such as paper, cardboard, plastics, glass, batteries, or metals; or the use of recyclable materials. The plan must identify any additional waste management measures and implement those measures the source considers practical and feasible, considering the effectiveness of waste management measures already in place, the costs of additional measures, the emissions reductions expected to be achieved, and any other environmental or energy impacts they might have.

Operator Training and Qualification

§ 60.2070 What are the operator training and qualification requirements?

(a) No CISWI unit can be operated unless a fully trained and qualified CISWI unit operator is accessible, either at the facility or can be at the facility within 1 hour. The trained and qualified CISWI unit operator may operate the CISWI unit directly or be the direct supervisor of one or more other plant

personnel who operate the unit. If all qualified CISWI unit operators are temporarily not accessible, you must follow the procedures in § 60.2100.

(b) Operator training and qualification must be obtained through a State-approved program or by completing the requirements included in paragraph (c) of this section.

(c) Training must be obtained by completing an incinerator operator training course that includes, at a minimum, the three elements described in paragraphs (c)(1) through (3) of this section.

(1) Training on the eleven subjects listed in paragraphs (c)(1)(i) through (xi) of this section.

(i) Environmental concerns, including types of emissions.

(ii) Basic combustion principles, including products of combustion.

(iii) Operation of the specific type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures.

(iv) Combustion controls and monitoring.

(v) Operation of air pollution control equipment and factors affecting performance (if applicable).

(vi) Inspection and maintenance of the incinerator and air pollution control devices.

(vii) Actions to prevent and correct malfunctions or to prevent conditions that may lead to malfunctions.

(viii) Bottom and fly ash characteristics and handling procedures.

(ix) Applicable Federal, State, and local regulations, including Occupational Safety and Health Administration workplace standards.

(x) Pollution prevention.

(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.

[65 FR 75350, Dec. 1, 2000, as amended at 76 FR 15451, Mar. 21, 2011]

§ 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 unit startup.

(b) December 3, 2001.

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

§ 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.

(e) Discussion of operating problems encountered by attendees.

[65 FR 75350, Dec. 1, 2000, as amended at 76 FR 15451, Mar. 21, 2011]

§ 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.

(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 unit 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.

(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 unit, whichever date is later.

(2) Subsequent annual reviews of the information listed in paragraph (a) of this section must be conducted not 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 unit 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.

(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 unit may be operated by other plant personnel familiar with the operation of the CISWI unit 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.

(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.

(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 unit. 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 unit is disapproved, the CISWI unit 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).

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

Emission Limitations and Operating Limits

§ 60.2105 What emission limitations must I meet and by when?

Link to an amendment published at 78 FR 9179, Feb. 7, 2013.

(a) You must meet the emission limitations for each CISWI unit, including bypass stack or vent, specified in table 1 of this subpart or tables 5 through 8 of this subpart by the applicable date in § 60.2140. You must be in compliance with the emission limitations of this subpart that apply to you at all times.

(b) An incinerator unit 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 September 21, 2011 must meet the more stringent emission limit for the respective pollutant in table 1 of this subpart or table 6 of subpart DDDD.

[76 FR 15451, Mar. 21, 2011]

§ 60.2110 What operating limits must I meet and by when?

Link to an amendment published at 78 FR 9179, Feb. 7, 2013.

(a) If you use a wet scrubber(s) to comply with the emission limitations, you must establish operating limits for up to four operating parameters (as specified in table 2 of this subpart) as described in paragraphs (a)(1) through (4) of this section during the initial performance test.

(1) Maximum charge rate, calculated using one of the two different procedures in paragraph (a)(1)(i) or (ii), as appropriate.

(i) For continuous and intermittent units, maximum charge rate is 110 percent of the average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(ii) For batch units, maximum charge rate is 110 percent of the daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(2) Minimum pressure drop across the wet particulate matter scrubber, which is calculated as the lowest 1-hour average pressure drop across the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations; or minimum amperage to the fan for the wet scrubber, which is calculated as the lowest 1-hour average amperage to the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

(3) Minimum scrubber liquid flow rate, which is calculated as the lowest 1-hour average liquid flow rate at the inlet to the wet acid gas or particulate matter scrubber measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(4) Minimum scrubber liquor pH, which is calculated as the lowest 1-hour average liquor pH at the inlet to the wet acid gas scrubber measured during the most recent performance test demonstrating compliance with the HCl emission limitation.

(b) You must meet the operating limits established during the initial performance test 60 days after your CISWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup.

(c) If you use a fabric filter to comply with the emission limitations, you must operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If

corrective action is required, each alarm shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by you to initiate corrective action.

(d) If you use an electrostatic precipitator to comply with the emission limitations, you must measure the (secondary) voltage and amperage of the electrostatic precipitator collection plates during the particulate matter performance test. Calculate the average electric power value (secondary voltage × secondary current = secondary electric power) for each test run. The operating limit for the electrostatic precipitator is calculated as the lowest 1-hour average secondary electric power measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

(e) If you use activated carbon sorbent injection to comply with the emission limitations, you must measure the sorbent flow rate during the performance testing. The operating limit for the carbon sorbent injection is calculated as the lowest 1-hour average sorbent flow rate measured during the most recent performance test demonstrating compliance with the mercury emission limitations.

(f) If you use selective noncatalytic reduction to comply with the emission limitations, you must measure the charge rate, the secondary chamber temperature (if applicable to your CISWI unit), and the reagent flow rate during the nitrogen oxides performance testing. The operating limits for the selective noncatalytic reduction are calculated as the lowest 1-hour average charge rate, secondary chamber temperature, and reagent flow rate measured during the most recent performance test demonstrating compliance with the nitrogen oxides emission limitations.

(g) If you do not use a wet scrubber, electrostatic precipitator, or fabric filter to comply with the emission limitations, and if you do not determine compliance with your particulate matter emission limitation with a particulate matter continuous emission monitoring system, you must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).

[65 FR 75350, Dec. 1, 2000, as amended at 76 FR 15451, Mar. 21, 2011]

§ 60.2115 What if I do not use a wet scrubber, fabric filter, activated carbon injection, selective noncatalytic reduction, or an electrostatic precipitator to comply with the emission limitations?

Link to an amendment published at 78 FR 9180, Feb. 7, 2013.

If you use an air pollution control device other than a wet scrubber, activated carbon injection, selective noncatalytic reduction, fabric filter, or an electrostatic precipitator or limit emissions in some other manner, including material balances, to comply with the emission limitations under § 60.2105, you must petition the EPA Administrator for specific operating limits to be established during the initial performance test and continuously monitored thereafter. You must not conduct the initial performance test until after the petition has been approved by the Administrator. Your petition must include the five items listed in paragraphs (a) through (e) of this section.

(a) Identification of the specific parameters you propose to use as additional operating limits.

(b) A discussion of the relationship between these parameters and emissions of regulated pollutants, identifying how emissions of regulated pollutants change with changes in these parameters and how limits on these parameters will serve to limit emissions of regulated pollutants.

(c) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the operating limits on these parameters.

(d) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments.

(e) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

[76 FR 15451, Mar. 21, 2011]

§ 60.2120 Affirmative Defense for Exceedance of an Emission Limit During Malfunction.

Link to an amendment published at 78 FR 9181, Feb. 7, 2013.

In response to an action to enforce the standards set forth in paragraph § 60.2105, you may assert an affirmative defense to a claim for civil penalties for exceedances of such standards that are caused by malfunction, as defined at 40 CFR 60.2. Appropriate penalties may be assessed, however, if you fail to meet your burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(a) To establish the affirmative defense in any action to enforce such a limit, you must timely meet the notification requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that:

(1) The excess emissions:

(i) Were caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner; and

(ii) Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

(iii) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(iv) Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(2) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(3) The frequency, amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions; and

(4) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(5) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment and human health; and

(6) All emissions and/or parameter monitoring and systems, as well as control systems, were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(7) All of the actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs; and

(8) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions; and

(9) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

(b) Notification. The owner or operator of the facility experiencing an exceedance of its emission limit(s) during a malfunction shall notify the Administrator by telephone or facsimile (FAX) transmission

as soon as possible, but no later than two business days after the initial occurrence of the malfunction, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The owner or operator seeking to assert an affirmative defense shall also submit a written report to the Administrator within 45 days of the initial occurrence of the exceedance of the standard in § 60.2105 to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (a) of this section. The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45 day period. Until a request for an extension has been approved by the Administrator, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.

[76 FR 15452, Mar. 21, 2011]

Performance Testing

§ 60.2125 How do I conduct the initial and annual performance test?

Link to an amendment published at 78 FR 9181, Feb. 7, 2013.

(a) All performance tests must consist of a minimum of three test runs conducted under conditions representative of normal operations.

(b) You must document that the waste burned during the performance test is representative of the waste burned under normal operating conditions by maintaining a log of the quantity of waste burned (as required in § 60.2175(b)(1)) and the types of waste burned during the performance test.

(c) All performance tests must be conducted using the minimum run duration specified in table 1 of this subpart or tables 5 through 8 of this subpart.

(d) Method 1 of appendix A of this part must be used to select the sampling location and number of traverse points.

(e) Method 3A or 3B of appendix A of this part must be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B of appendix A of this part must be used simultaneously with each method.

(f) All pollutant concentrations, except for opacity, must be adjusted to 7 percent oxygen using Equation 1 of this section:

$C_{adj} = C_{meas} (20.9-7)/(20.9-\%O_2)$ (Eq. 1)

Where:

C_{adj} = pollutant concentration adjusted to 7 percent oxygen;

C_{meas} = pollutant concentration measured on a dry basis;

(20.9-7) = 20.9 percent oxygen−7 percent oxygen (defined oxygen correction basis);

20.9 = oxygen concentration in air, percent; and

$\%O_2$ = 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 (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) For each dioxin/furan (tetra-through octa-chlorinated) isomer measured in accordance with paragraph (g)(1) of this section, multiply the isomer concentration by its corresponding toxic equivalency factor specified in table 3 of this subpart.

(3) Sum the products calculated in accordance with paragraph (g)(2) 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 of this part, 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.

[65 FR 75353, Dec. 1, 2000, as amended at 76 FR 15453, Mar. 21, 2011]

§ 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.

[76 FR 15453, Mar. 21, 2011]

Initial Compliance Requirements

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

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,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. You must conduct a performance evaluation of each continuous monitoring system within 60 days of installation of the monitoring system.

[76 FR 15453, Mar. 21, 2011]

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

Link to an amendment published at 78 FR 9181, Feb. 7, 2013.

(a) The initial performance test must be conducted within 60 days after your CISWI unit 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 combusting 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 given 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 commencing or recommencing solid waste combustion.

[65 FR 75353, Dec. 1, 2000, as amended at 76 FR 15453, Mar. 21, 2011]

§ 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 unit 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.

[76 FR 15453, Mar. 21, 2011]

Continuous Compliance Requirements

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

Link to an amendment published at 78 FR 9182, Feb. 7, 2013.

(a) Compliance with standards.

(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 unit, 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 any newly applicable standards on the effective date of the waste-to-fuel switch. The effective date of the waste-to-fuel switch is a date selected by you, that must be at least 6 months from the date that you ceased combusting solid waste, consistent with § 60.2145(a)(2). Your source must remain in compliance with this subpart until the effective date of the waste-to-fuel switch.

(4) If you own or operate an existing commercial or industrial combustion unit that combusted a fuel or non-waste material, and you commence or recommence combustion of solid waste, you are subject to the provisions of this subpart as of the first day you introduce or reintroduce solid waste to the combustion chamber, and this date constitutes the effective date of the fuel-to-waste switch. You must complete all initial compliance demonstrations for any section 112 standards that are applicable to your facility before you commence or recommence combustion of solid waste. You must provide 30 days prior notice of the effective date of the waste-to-fuel switch. The notification must identify:

(i) The name of the owner or operator of the CISWI unit, the location of the source, the emissions unit(s) that will cease burning solid waste, and the date of the notice;

(ii) The currently applicable subcategory under this subpart, and any 40 CFR part 63 subpart and subcategory that will be applicable after you cease combusting solid waste;

(iii) The fuel(s), non-waste material(s) and solid waste(s) the CISWI unit is currently combusting and has combusted over the past 6 months, and the fuel(s) or non-waste materials the unit will commence combusting;

(iv) The date on which you became subject to the currently applicable emission limits;

(v) The date upon which you will cease combusting solid waste, and the date (if different) that you intend for any new requirements to become applicable (*i.e.,* the effective date of the waste-to-fuel switch), consistent with paragraphs (a)(2) and (3)of this section.

(5) All air pollution control equipment necessary for compliance with any newly applicable emissions limits which apply as a result of the cessation or commencement or recommencement of combusting solid waste must be installed and operational as of the effective date of the waste-to-fuel, or fuel-to-waste switch.

(6) All monitoring systems necessary for compliance with any newly applicable monitoring requirements which apply as a result of the cessation or commencement or recommencement of combusting solid waste must be installed and operational as of the effective date of the waste-to-fuel, or fuel-to-waste switch. All calibration and drift checks must be performed as of the effective date of the waste-to-fuel, or fuel-to-waste switch. Relative accuracy tests must be performed as of the performance test deadline for PM CEMS. Relative accuracy testing for other CEMS need not be repeated if that testing was previously performed consistent with Clean Air Act section 112 monitoring requirements or monitoring requirements under this subpart.

(b) You must conduct an annual performance test for the pollutants listed in table 1 of this subpart or tables 5 through 8 of this subpart and opacity for each CISWI unit as required under § 60.2125. The annual 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. Annual performance tests are not required if you use continuous emission monitoring systems or continuous opacity monitoring systems to determine compliance.

(c) You must continuously monitor the operating parameters specified in § 60.2110 or established under § 60.2115 and as specified in § 60.2170. Use three-hour block average values to determine compliance (except for baghouse leak detection system alarms) unless a different averaging period is established under § 60.2115. Operation above the established maximum, below the established minimum, or outside the allowable range of the operating limits specified in paragraph (a) of this section constitutes a deviation from your operating limits established under this subpart, except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits. Operating limits are confirmed or reestablished during performance tests.

(d) You must burn only the same types of waste used to establish operating limits during the performance test.

(e) For energy recovery units, incinerators, and small remote units, you must perform an annual visual emissions test for ash handling.

(f) For energy recovery units, you must conduct an annual performance test for opacity (except where particulate matter continuous emission monitoring system or continuous opacity monitoring systems are used are used) and the pollutants listed in table 6 of this subpart.

(g) You must demonstrate continuous compliance with the carbon monoxide emission limit using a carbon monoxide continuous emission monitoring system according to the following requirements:

(1) You must measure emissions according to § 60.13 to calculate 1-hour arithmetic averages, corrected to 7 percent oxygen. You must demonstrate initial compliance with the carbon monoxide emissions limit using a 30-day rolling average of these 1-hour arithmetic average emission concentrations, calculated using Equation 19-19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A-7 of this part.

(2) Operate the carbon monoxide continuous emission monitoring system in accordance with the requirements of performance specification 4A of appendix B of this part and quality assurance procedure 1 of appendix F of this part.

(h) For energy recovery units with design capacities greater than or equal to 250 MMBtu/hr and waste-burning kilns, demonstrate continuous compliance with the particulate matter emissions limit using a particulate matter continuous emission monitoring system according to the procedures in § 60.2165(n).

(i) For energy recovery units with design capacities greater than or equal to 10 MMBtu/hour, if you have an opacity operating limit, you must install, operate, certify and maintain a continuous opacity monitoring system (COMS) according to the procedures in § 60.2165.

(j) For waste-burning kilns, you must conduct an annual performance test for cadmium, lead, dioxins/furans and hydrogen chloride as listed in table 7 of this subpart. You must determine compliance with hydrogen chloride using a hydrogen chloride continuous emission monitoring system if you do not use an acid gas wet scrubber. You must determine compliance with nitrogen oxides, sulfur dioxide, carbon monoxide, and particulate matter using continuous emission monitoring systems. You must determine compliance with the mercury emissions limit using a mercury continuous emission monitoring system according to the following requirements:

(1) Operate a continuous emission monitoring system in accordance with performance specification 12A of 40 CFR part 60, appendix B or a sorbent trap based integrated monitor in accordance with performance specification 12B of 40 CFR part 60, appendix B. The duration of the performance test must be a calendar month. For each calendar month in which the waste-burning kiln operates, hourly mercury concentration data, and stack gas volumetric flow rate data must be obtained.

(2) Owners or operators using a mercury continuous emission monitoring system must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the mercury mass emissions rate to the atmosphere according to the requirements of performance specifications 6 and 12A of 40 CFR part 60, appendix B, and quality assurance procedure 6 of 40 CFR part 60, appendix F.

(3) The owner or operator of a waste-burning kiln must demonstrate initial compliance by operating a mercury continuous emission monitoring system while the raw mill of the in-line kiln/raw mill is operating under normal conditions and while the raw mill of the in-line kiln/raw mill is not operating.

(k) If you use an air pollution control device to meet the emission limitations in this subpart, you must conduct an initial and annual inspection of the air pollution control device. The inspection must include, at a minimum, the following:

(1) Inspect air pollution control device(s) for proper operation.

(2) Develop a site-specific monitoring plan according to the requirements in paragraph (l) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 60.13(i).

(l) For each continuous monitoring system required in this section, you must develop and submit to the EPA Administrator for approval a site-specific monitoring plan according to the requirements of this paragraph (l) that addresses paragraphs (l)(1)(i) through (vi) of this section.

(1) You must submit this site-specific monitoring plan at least 60 days before your initial performance evaluation of your continuous monitoring system.

(i) Installation of the continuous monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.,* on or downstream of the last control device).

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

(iii) Performance evaluation procedures and acceptance criteria (*e.g.,* calibrations).

(iv) Ongoing operation and maintenance procedures in accordance with the general requirements of § 60.11(d).

(v) Ongoing data quality assurance procedures in accordance with the general requirements of § 60.13.

(vi) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 60.7(b), (c), (c)(1), (c)(4), (d), (e), (f), and (g).

(2) You must conduct a performance evaluation of each continuous monitoring system in accordance with your site-specific monitoring plan.

(3) You must operate and maintain the continuous monitoring system in continuous operation according to the site-specific monitoring plan.

(m) If you have an operating limit that requires the use of a flow monitoring system, you must meet the requirements in paragraphs (l) and (m)(1) through (4) of this section.

(1) Install the flow sensor and other necessary equipment in a position that provides a representative flow.

(2) Use a flow sensor with a measurement sensitivity of no greater than 2 percent of the expected process flow rate.

(3) Minimize the effects of swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

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

(n) If you have an operating limit that requires the use of a pressure monitoring system, you must meet the requirements in paragraphs (l) and (n)(1) through (6) of this section.

(1) Install the pressure sensor(s) in a position that provides a representative measurement of the pressure (*e.g.,* PM scrubber pressure drop).

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

(3) Use a pressure sensor with a minimum tolerance of 1.27 centimeters of water or a minimum tolerance of 1 percent of the pressure monitoring system operating range, whichever is less.

(4) Perform checks at least once each process operating day to ensure pressure measurements are not obstructed (*e.g.,* check for pressure tap pluggage daily).

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

(6) If at any time the measured pressure exceeds the manufacturer's specified maximum operating pressure range, conduct a performance evaluation of the pressure monitoring system in accordance with your monitoring plan and confirm that the pressure monitoring system continues to meet the performance requirements in your monitoring plan. Alternatively, install and verify the operation of a new pressure sensor.

(o) If you have an operating limit that requires a pH monitoring system, you must meet the requirements in paragraphs (l) and (o)(1) through (4) of this section.

(1) Install the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

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

(3) Conduct a performance evaluation of the pH monitoring system in accordance with your monitoring plan at least once each process operating day.

(4) Conduct a performance evaluation (including a two-point calibration with one of the two buffer solutions having a pH within 1 of the pH of the operating limit) of the pH monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than quarterly.

(p) If you have an operating limit that requires a secondary electric power monitoring system for an electrostatic precipitator, you must meet the requirements in paragraphs (l) and (p)(1) through (2) of this section.

(1) Install sensors to measure (secondary) voltage and current to the precipitator collection plates.

(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.

(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.

(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 continuous emission monitoring system to demonstrate compliance with the sulfur dioxide emission limit, compliance with the sulfur dioxide emission limit may be demonstrated by using the continuous emission monitoring system specified in § 60.2165 to measure sulfur dioxide and calculating a 30-day rolling average emission concentration using Equation 19-19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, Appendix A-7 of this part. The sulfur dioxide continuous emission monitoring system must be operated according to performance specification 2 in appendix B of this part and must follow the procedures and methods specified in this paragraph(s). For sources that have actual inlet emissions less than 100 parts per million dry volume, the relative accuracy criterion for inlet sulfur dioxide continuous emission monitoring systems 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 continuous emission monitoring systems, whichever is greater.

(1) During each relative accuracy test run of the continuous emission monitoring system 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 continuous emission monitors and the test methods specified in paragraphs (s)(1)(i) and (s)(1)(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.

(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 continuous emission monitoring system 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 rule. The span value of the continuous emission monitoring system 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 rule.

(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 continuous emission monitoring system to demonstrate continuous compliance with the nitrogen oxides emission limit, compliance with the nitrogen oxides emission limit may be demonstrated by using the continuous emission monitoring system specified in § 60.2165 to measure nitrogen oxides and calculating a 30-day rolling average emission concentration using Equation 19-19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A-7 of this part. The nitrogen oxides continuous emission monitoring system must be operated according to performance specification 2 in appendix B of this part and must follow the procedures and methods specified in paragraphs (t)(1) through (t)(5) of this section.

(1) During each relative accuracy test run of the continuous emission monitoring system 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 continuous emission monitoring systems and the test methods specified in paragraphs (t)(1)(i) and (t)(1)(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.

(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 (t)(4)(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.

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

(u) For facilities using a continuous emission monitoring system to demonstrate 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, calculated using Equation 19-19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A-7 of this part.

(2) Operate all continuous emission monitoring systems in accordance with the applicable procedures under appendices B and F of this part.

(v) Use of the bypass stack at any time is an emissions standards deviation for particulate matter, HCl, Pb, Cd, Hg, NO_X , SO_2 , and dioxin/furans.

[76 FR 15453, Mar. 21, 2011]

§ 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.

[76 FR 15456, Mar. 21, 2011]

§ 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.

[76 FR 15456, Mar. 21, 2011]

§ 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 to apply from that point forward, as specified in § 60.2160. 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) If the initial or any subsequent performance test for any pollutant in table 1 or tables 5 through 8 of this subpart, as applicable, demonstrates that the emission level for the pollutant is no greater than the emission level specified in paragraph (a)(3)(i) or (a)(3)(ii) of this section, as applicable, 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, you may elect to skip conducting a performance test for the pollutant for the next 2 years. You must conduct a performance test for the pollutant during the third year and no more than 37 months

following the previous performance test for the pollutant. For cadmium and lead, both cadmium and lead must be emitted at emission levels no greater than their respective emission levels specified in paragraph (a)(3)(i) of this section for you to qualify for less frequent testing under this paragraph.

(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, to this subpart.

(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 unit does not meet the emission level specified in paragraph (a)(3)(i) or (a)(3)(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]

[76 FR 15456, Mar. 21, 2011]

§ 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?

Link to an amendment published at 78 FR 9184, Feb. 7, 2013.

(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, 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) You must install and operate a bag leak detection system for each exhaust stack of the fabric filter.

(2) Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.

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

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

(7) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter.

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

(c) If you are using something other than a wet scrubber, activated carbon, selective non-catalytic reduction, or an electrostatic precipitator to comply with the emission limitations under § 60.2105, you must install, calibrate (to the manufacturers' specifications), maintain, and operate the equipment necessary to monitor compliance with the site-specific operating limits established using the procedures in § 60.2115.

(d) If you use activated carbon injection to comply with the emission limitations in this subpart, you must measure the minimum mercury sorbent flow rate once per hour.

(e) If you use selective noncatalytic reduction to comply with the emission limitations, you must complete the following:

(1) Following the date on which the initial performance test is completed or is required to be completed under § 60.2125, whichever date comes first, ensure that the affected facility does not operate above the maximum charge rate, or below the minimum secondary chamber temperature (if applicable to your CISWI unit) or the minimum reagent flow rate measured as 3-hour block averages at all times.

(2) Operation of the affected facility above the maximum charge rate, below the minimum secondary chamber temperature and below the minimum reagent flow rate simultaneously constitute a violation of the nitrogen oxides emissions limit.

(f) If you use an electrostatic precipitator to comply with the emission limits of this subpart, you must monitor the secondary power to the electrostatic precipitator collection plates and maintain the 3-hour block averages at or above the operating limits established during the mercury or particulate matter performance test.

(g) For waste-burning kilns not equipped with a wet scrubber, in place of hydrogen chloride testing with EPA Method 321 at 40 CFR part 63, appendix A, an owner or operator must install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring hydrogen chloride emissions discharged to the atmosphere and record the output of the system. To demonstrate continuous compliance with the hydrogen chloride emissions limit for units other than waste-burning kilns not equipped with a wet scrubber, a facility may substitute use of a hydrogen chloride continuous emission monitoring system for conducting the hydrogen chloride annual performance test, monitoring the minimum hydrogen chloride sorbent flow rate, and monitoring the minimum scrubber liquor pH.

(h) To demonstrate continuous compliance with the particulate matter emissions limit, a facility may substitute use of a particulate matter continuous emission monitoring system for conducting the particulate matter annual performance test and monitoring the minimum pressure drop across the wet scrubber, if applicable.

(i) To demonstrate continuous compliance with the dioxin/furan emissions limit, a facility may substitute use of a continuous automated sampling system for the dioxin/furan annual performance test. You must record the output of the system and analyze the sample according to EPA Method 23

at 40 CFR part 60, appendix A-7 of this part. You may propose alternative continuous monitoring consistent with the requirements in § 60.13(i). The owner or operator who elects to continuously sample dioxin/furan emissions instead of sampling and testing using EPA Method 23 at 40 CFR part 60, appendix A-7 must install, calibrate, maintain, and operate a continuous automated sampling system and must comply with the requirements specified in § 60.58b(p) and (q).

(j) To demonstrate continuous compliance with the mercury emissions limit, a facility may substitute use of a continuous automated sampling system for the mercury annual performance test. You must record the output of the system and analyze the sample at set intervals using any suitable determinative technique that can meet performance specification 12B. The owner or operator who elects to continuously sample mercury emissions instead of sampling and testing using EPA Reference Method 29 or 30B at 40 CFR part 60, appendix A-8 of this part, ASTM D6784-02 (Reapproved 2008) (incorporated by reference, see § 60.17), or an approved alternative method for measuring mercury emissions, must install, calibrate, maintain, and operate a continuous automated sampling system and must comply with performance specification 12A and quality assurance procedure 5, as well as the requirements specified in § 60.58b(p) and (q).

(k) To demonstrate continuous compliance with the nitrogen oxides emissions limit, a facility may substitute use of a continuous emission monitoring system for the nitrogen oxides annual performance test to demonstrate compliance with the nitrogen oxides emissions limits.

(1) Install, calibrate, maintain, and operate a continuous emission monitoring system 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 one of appendix F of this part and the procedures under § 60.13 must be followed for installation, evaluation, and operation of the continuous emission monitoring system.

(2) Following the date that the initial performance test for nitrogen oxides is completed or is required to be completed under § 60.2125, compliance with the emission limit for nitrogen oxides required under § 60.52b(d) must be determined based on the 30-day rolling average of the hourly emission concentrations using continuous emission monitoring system outlet data. The 1-hour arithmetic averages must be expressed in parts per million by volume (dry basis) and used to calculate the 30-day rolling average concentrations. The 1-hour arithmetic averages must be calculated using the data points required under § 60.13(e)(2).

(l) To demonstrate continuous compliance with the sulfur dioxide emissions limit, a facility may substitute use of a continuous automated sampling system for the sulfur dioxide annual performance test to demonstrate compliance with the sulfur dioxide emissions limits.

(1) Install, calibrate, maintain, and operate a continuous emission monitoring system 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 continuous emission monitoring system.

(2) Following the date that the initial performance test for sulfur dioxide is completed or is required to be completed under § 60.2125, compliance with the sulfur dioxide emission limit may be determined based on the 30-day rolling average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data. The 1-hour arithmetic averages must be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 30-day rolling average emission concentrations and daily geometric average emission percent reductions. The 1-hour arithmetic averages must be calculated using the data points required under § 60.13(e)(2).

(m) For energy recovery units over 10 MMBtu/hr design heat input that do not use a wet scrubber, fabric filter with bag leak detection system, or particulate matter continuous emission monitoring system, 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 particulate matter continuous emission monitoring system 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).

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

(n) For energy recovery units with design capacities greater than 250 MMBtu/hr, in place of particulate matter testing with EPA Method 5 at 40 CFR part 60, appendix A-3, an owner or operator must install, calibrate, maintain, and operate a continuous emission monitoring system 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 must install, calibrate, maintain, and operate a continuous emission monitoring system and must comply with the requirements specified in paragraphs (n)(1) through (n)(14) of this section.

(1) Notify the Administrator 1 month before starting use of the system.

(2) Notify the Administrator 1 month before stopping use of the system.

(3) The monitor 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 two 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.

(4) 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.

(5) 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(s)(5)(i) through (s)(5)(iv).

(6) The owner or operator of an affected facility must conduct an initial performance test for particulate matter emissions as required under § 60.2125. Compliance with the particulate matter emission limit must be determined by using the continuous emission monitoring system specified in paragraph (n) of this section to measure particulate matter and calculating a 30-day rolling average emission concentration using Equation 19-19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A-7.

(7) 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 continuous emission monitoring system outlet data.

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

(9) The 1-hour arithmetic averages required under paragraph (n)(7) 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. The 1-hour arithmetic averages must be calculated using the data points required under § 60.13(e)(2).

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

(11) The continuous emission monitoring system must be operated according to performance specification 11 in appendix B of this part.

(12) During each relative accuracy test run of the continuous emission monitoring system required by performance specification 11 in appendix B of this part, particulate matter and oxygen (or carbon dioxide) data must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the following test methods.

(i) For particulate matter, EPA Reference Method 5 must be used.

(ii) For oxygen (or carbon dioxide), EPA Reference Method 3A or 3B, as applicable, must be used.

(13) Quarterly accuracy determinations and daily calibration drift tests must be performed in accordance with procedure 2 in appendix F of this part.

(14) When particulate matter emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data must be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 at 40 CFR part 60, appendix A-7 to provide, as necessary, valid emissions data for a minimum of 85 percent of the hours per day, 90 percent of the hours per calendar quarter, and 95 percent of the hours per calendar year that the affected facility is operated and combusting waste.

(o) To demonstrate continuous compliance with the carbon monoxide emissions limit, you must use a continuous automated sampling system.

(1) Install, calibrate, maintain, and operate a continuous emission monitoring system for measuring carbon monoxide emissions discharged to the atmosphere and record the output of the system. The requirements under performance specification 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 installation, evaluation, and operation of the continuous emission monitoring system.

(2) Following the date that the initial performance test for carbon monoxide is completed or is required to be completed under § 60.2140, compliance with the carbon monoxide emission limit must be determined based on the 30-day rolling average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data. The 1-hour arithmetic averages must be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 30-day rolling average emission concentrations. The 1-hour arithmetic averages must be calculated using the data points required under § 60.13(e)(2).

(p) The owner/operator of an affected source with a bypass stack shall install, calibrate (to manufacturers' specifications), maintain, and operate a device or method for measuring the use of the bypass stack including date, time and duration.

[65 FR 75353, Dec. 1, 2000, as amended at 76 FR 15457, Mar. 21, 2011]

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

Link to an amendment published at 78 FR 9187, Feb. 7, 2013.

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) of this part), 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 in assessing the operation of the control device and associated control system.

(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.

[76 FR 15459, Mar. 21, 2011]

Recordkeeping and Reporting

§ 60.2175 What records must I keep?

Link to an amendment published at 78 FR 9187, Feb. 7, 2013.

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

(a) Calendar date of each record.

(b) Records of the data described in paragraphs (b)(1) through (6) of this section:

(1) The CISWI unit 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 CISWI units that establish operating limits for controls other than wet scrubbers under § 60.2110(d) through (f) or § 60.2115, you must maintain data collected for all operating parameters used to determine compliance with the operating limits.

(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).

(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 (f) 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 unit 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 they can be reached during operating hours.

(k) Records of calibration of any monitoring devices as required under § 60.2165.

(l) Equipment vendor specifications and related operation and maintenance requirements for the incinerator, emission controls, and monitoring equipment.

(m) The information listed in § 60.2095(a).

(n) On a daily basis, keep a log of the quantity of waste burned and the types of waste burned (always required).

(o) Maintain records of the annual air pollution control device inspections that are required for each CISWI unit subject to the emissions limits in table 1 of this subpart or tables 5 through 8 of this subpart, any required maintenance, and any repairs not completed within 10 days of an inspection or the timeframe established by the state regulatory agency.

(p) For continuously monitored pollutants or parameters, you must document and keep a record of the following parameters measured using continuous monitoring systems.

(1) All 6-minute average levels of opacity.

(2) All 1-hour average concentrations of sulfur dioxide emissions.

(3) All 1-hour average concentrations of nitrogen oxides emissions.

(4) All 1-hour average concentrations of carbon monoxide emissions.

(5) All 1-hour average concentrations of particulate matter emissions.

(6) All 1-hour average concentrations of mercury emissions.

(7) All 1-hour average concentrations of hydrogen chloride emissions.

(q) Records indicating use of the bypass stack, including dates, times, and durations.

(r) If you choose to stack test less frequently than annually, consistent with § 60.2155(a) through (c), you must keep annual records that document that your emissions in the previous stack test(s) were less than 75 percent of the applicable emission limit and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year.

(s) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.

(t) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(u) Records of actions taken during periods of malfunction to minimize emissions in accordance with § 60.11(d), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(v) For operating units that burn materials other than traditional fuels as defined in § 241.2, a description of each material burned, and a record which documents how each material that is not a traditional fuel meets each of the legitimacy criteria in § 241.3(d). If you combust a material that has been processed from a discarded non-hazardous secondary material pursuant to § 241.3(b)(4), you must keep records as to how the operations that produced the material satisfy the definition of processing in § 241.2. If the material received a non-waste determination pursuant to the petition process submitted under § 241.3(c), you must keep a copy of the non-waste determination granted by EPA.

(w) For operating units that burn tires,

(1) A certification that the shipment of tires that are non-waste per 40 CFR 241.3(b)(2)(i), are part of an established tire collection program, consistent with the definition of that term in § 241.2. The certification must document that the tires were not discarded and are handled as valuable commodities in accordance with § 241.3(d), from the point of removal from the automobile through arrival at the combustion facility. The certification must identify the entity the tires were received from (for example, the name of the state or private collection program), the quantity, volume, or weight of tires received by you, and the dates received. The certification must be signed by the owner or operator of the combustion unit, or by a responsible official of the established tire collection program, and must include the following certification of compliance, “The tires from this tire collection program meet the EPA definition of an established tire collection program in 40 CFR section 241.” and state the title or position of the person signing the certification.

(2) You must also keep a record that identifies where on your plant site the tires from each tire collection program are located, and that accounts for all tires at the plant site.

[65 FR 75353, Dec. 1, 2000, as amended at 76 FR 15459, Mar. 21, 2011]

§ 60.2180 Where and in what format must I keep my records?

All records must be available onsite in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the Administrator.

§ 60.2185 What reports must I submit?

See table 4 of this subpart for a summary of the reporting requirements.

§ 60.2190 What must I submit prior to commencing construction?

You must submit a notification prior to commencing construction that includes the five items listed in paragraphs (a) through (e) of this section.

(a) A statement of intent to construct.

(b) The anticipated date of commencement of construction.

(c) All documentation produced as a result of the siting requirements of § 60.2050.

(d) The waste management plan as specified in §§ 60.2055 through 60.2065.

(e) Anticipated date of initial startup.

§ 60.2195 What information must I submit prior to initial startup?

You must submit the information specified in paragraphs (a) through (e) of this section prior to initial startup.

(a) The type(s) of waste to be burned.

(b) The maximum design waste burning capacity.

(c) The anticipated maximum charge rate.

(d) If applicable, the petition for site-specific operating limits under § 60.2115.

(e) The anticipated date of initial startup.

§ 60.2200 What information must I submit following my initial performance test?

You must submit the information specified in paragraphs (a) through (c) of this section no later than 60 days following the initial performance test. All reports must be signed by the facilities manager.

(a) The complete test report for the initial performance test results obtained under § 60.2135, as applicable.

(b) The values for the site-specific operating limits established in § 60.2110 or § 60.2115.

(c) If you are using a fabric filter to comply with the emission limitations, documentation that a bag leak detection system has been installed and is being operated, calibrated, and maintained as required by § 60.2165(b).

§ 60.2205 When must I submit my annual report?

You must submit an annual report no later than 12 months following the submission of the information in § 60.2200. You must submit subsequent reports no more than 12 months following the previous report. (If the unit is subject to permitting requirements under title V of the Clean Air Act, you may be required by the permit to submit these reports more frequently.)

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

Link to an amendment published at 78 FR 9187, Feb. 7, 2013.

The annual report required under § 60.2205 must include the ten items listed in paragraphs (a) through (j) 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, 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) If a performance test was conducted during the reporting period, the results of that test.

(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 unit 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 unit 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 unit at which the deviation occurred during the reporting period.

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

(m) If there were periods during which the continuous monitoring system, including the continuous emission monitoring system, 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 unit 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 unit 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 unit.

(9) A brief description of the CISWI unit.

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

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

(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 continuous emission monitoring system, 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.

(3) The continuous opacity monitoring system calibration drift exceeds two times the limit in the applicable performance specification in the relevant standard.

[65 FR 75353, Dec. 1, 2000, as amended at 76 FR 15460, Mar. 21, 2011]

§ 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 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, or if a performance test was conducted that 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).

§ 60.2220 What must I include in the deviation report?

In each report required under § 60.2215, for any pollutant or parameter that deviated from the emission limitations or operating limits specified in this subpart, include the six items described in paragraphs (a) through (f) of this section.

(a) The calendar dates and times your unit deviated from the emission limitations or operating limit requirements.

(b) The averaged and recorded data for those dates.

(c) Durations and causes of the following:

(1) Each deviation from emission limitations or operating limits and your corrective actions.

(2) Bypass events and your corrective actions.

(d) A copy of the operating limit monitoring data during each deviation and any test report that documents the emission levels.

[65 FR 75353, Dec. 1, 2000, as amended at 76 FR 15461, Mar. 21, 2011]

§ 60.2225 What else must I report if I have a deviation from the requirement to have a qualified operator accessible?

(a) If all qualified operators are not accessible for 2 weeks or more, you must take the two actions in paragraphs (a)(1) and (2) of this section.

(1) Submit a notification of the deviation within 10 days that includes the three items in paragraphs (a)(1)(i) through (iii) of this section.

(i) A statement of what caused the deviation.

(ii) A description of what you are doing to ensure that a qualified operator is accessible.

(iii) The date when you anticipate that a qualified operator will be available.

(2) Submit a status report to the Administrator every 4 weeks that includes the three items in paragraphs (a)(2)(i) through (iii) of this section.

(i) A description of what you are doing to ensure that a qualified operator is accessible.

(ii) The date when you anticipate that a qualified operator will be accessible.

(iii) Request approval from the Administrator to continue operation of the CISWI unit.

(b) If your unit was shut down by the Administrator, under the provisions of § 60.2100(b)(2), due to a failure to provide an accessible qualified operator, you must notify the Administrator that you are resuming operation once a qualified operator is accessible.

§ 60.2230 Are there any other notifications or reports that I must submit?

(a) Yes. You must submit notifications as provided by § 60.7.

(b) If you cease combusting solid waste but continue to operate, you must provide 30 days prior notice of the effective date of the waste-to-fuel switch, consistent with 60.2145(a). The notification must identify:

(1) The name of the owner or operator of the CISWI unit, the location of the source, the emissions unit(s) that will cease burning solid waste, and the date of the notice;

(2) The currently applicable subcategory under this subpart, and any 40 CFR part 63 subpart and subcategory that will be applicable after you cease combusting solid waste;

(3) The fuel(s), non-waste material(s) and solid waste(s) the CISWI unit is currently combusting and has combusted over the past 6 months, and the fuel(s) or non-waste materials the unit will commence combusting;

(4) The date on which you became subject to the currently applicable emission limits;

(5) The date upon which you will cease combusting solid waste, and the date (if different) that you intend for any new requirements to become applicable (*i.e.,* the effective date of the waste-to-fuel switch), consistent with paragraphs (b)(2) and (3)of this section.

[76 FR 15461, Mar. 21, 2011]

§ 60.2235 In what form can I submit my reports?

Link to an amendment published at 78 FR 9187, Feb. 7, 2013.

(a) Submit initial, annual and deviation reports electronically or in paper format, postmarked on or before the submittal due dates.

(b) As of January 1, 2012, and within 60 days after the date of completing each performance test, as defined in § 63.2, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit (*i.e.,* reference method) data and performance test (*i.e.,* compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (*see http://www.epa.gov/ttn/chief/ert/ert tool.html/*) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

[76 FR 15461, Mar. 21, 2011]

§ 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 unit and air curtain incinerator 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.

[76 FR 15461, Mar. 21, 2011]

Air Curtain Incinerators

§ 60.2245 What is an air curtain incinerator?

(a) An air curtain incinerator 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 “Air Curtain Incinerators” (§§ 60.2245 through 60.2260).

(1) 100 percent wood waste.

(2) 100 percent clean lumber.

(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 air curtain incinerator 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.

(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.

[76 FR 15761, Mar. 21, 2011]

§ 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.

(b) Conduct an initial test for opacity as specified in § 60.8.

(c) After the initial test for opacity, conduct annual tests no more than 12 calendar months following the date of your previous test.

§ 60.2260 What are the recordkeeping and reporting requirements for air curtain incinerators?

(a) Prior to commencing construction on your air curtain incinerator, submit the three items described in paragraphs (a)(1) through (3) of this section.

(1) Notification of your intent to construct the air curtain incinerators.

(2) Your planned initial startup date.

(3) Types of materials you plan to burn in your air curtain incinerator.

(b) Keep records of results of all initial and annual opacity tests onsite in either paper copy or electronic format, unless the Administrator approves another format, for at least 5 years.

(c) Make all records available for submittal to the Administrator or for an inspector's onsite review.

(d) You must submit the results (as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values) of the initial opacity tests no later than 60 days following the initial test. Submit annual opacity test results within 12 months following the previous report.

(e) Submit initial and annual opacity test reports as electronic or paper copy on or before the applicable submittal date.

(f) Keep a copy of the initial and annual reports onsite for a period of 5 years.

[65 FR 75353, Dec. 1, 2000, as amended at 76 FR 15461, Mar. 21, 2011]

Definitions

§ 60.2265 What definitions must I know?

Terms used but not defined in this subpart are defined in the Clean Air Act and subpart A (General Provisions) of this part.

Administrator means the Administrator of the U.S. Environmental Protection Agency or his/her authorized representative or Administrator of a State Air Pollution Control Agency.

30-day rolling average means the arithmetic mean of the previous 720 hours of valid operating data. Valid data excludes periods when this unit is not operating. The 720 hours should be consecutive, but not necessarily continuous if operations are intermittent.

Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Air curtain incinerator means an incinerator that operates by forcefully projecting a curtain of air across an open chamber or 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.)

Annual heat input means the heat input for the 12 months preceding the compliance demonstration.

Auxiliary fuel means natural gas, liquified petroleum gas, fuel oil, or diesel fuel.

Average annual heat input rate means annual heat input divided by the hours of operation for the 12 months preceding the compliance demonstration.

Bag leak detection system means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (i.e., baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

Burn-off oven means any rack reclamation unit, part reclamation unit, or drum reclamation unit. A burn-off oven is not an incinerator, waste-burning kiln, an energy recovery unit or a small, remote incinerator under this subpart.

Bypass stack means a device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

Calendar quarter means three consecutive months (nonoverlapping) beginning on: January 1, April 1, July 1, or October 1.

Calendar year means 365 consecutive days starting on January 1 and ending on December 31.

CEMS data during startup and shutdown means the following:

(1) For incinerators, small remote incinerators, and energy recovery units: CEMS data collected during the first hours of a CISWI unit startup from a cold start until waste is fed to the unit and the hours of operation following the cessation of waste material being fed to the CISWI unit during a unit shutdown. For each startup event, the length of time that CEMS data may be claimed as being CEMS data during startup must be 48 operating hours or less. For each shutdown event, the length of time that CEMS data may be claimed as being CEMS data during shutdown must be 24 operating hours or less.

(2) For waste-burning kilns: CEMS data collected during the periods of kiln operation that do not include normal operations. Startup begins when the kiln's induced fan is turned on and continues until

continuous feed is introduced into the kiln, at which time the kiln is in normal operating mode. Shutdown begins when feed to the kiln is halted.

Chemical recovery unit means combustion units burning materials to recover chemical constituents or to produce chemical compounds where there is an existing commercial market for such recovered chemical constituents or compounds. The following seven types of units are considered chemical recovery units:

(1) Units burning only pulping liquors (i.e., black liquor) that are reclaimed in a pulping liquor recovery process and reused in the pulping process.

(2) Units burning only spent sulfuric acid used to produce virgin sulfuric acid.

(3) Units burning only wood or coal feedstock for the production of charcoal.

(4) Units burning only manufacturing byproduct streams/residue containing 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.

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

Chemical recovery unit means combustion units burning materials to recover chemical constituents or to produce chemical compounds where there is an existing commercial market for such recovered chemical constituents or compounds. The following seven types of units are considered chemical recovery units:

(1) Units burning only pulping liquors (*i.e.,* black liquor) that are reclaimed in a pulping liquor recovery process and reused in the pulping process.

(2) Units burning only spent sulfuric acid used to produce virgin sulfuric acid.

(3) Units burning only wood or coal feedstock for the production of charcoal.

(4) Units burning only manufacturing byproduct streams/residue containing catalyst metals which 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.

(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 (CISWI) unit 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 unit. While not all CISWI units will include all of the following components, a CISWI unit 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 unit does not include air pollution control equipment or the stack. The CISWI unit 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 unit 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.

(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.

Dioxins/furans means tetra- through octachlorinated 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.

Kiln means an oven or furnace, including any associated preheater or precalciner devices, used for processing a substance by burning, firing or drying. Kilns include cement kilns that produce clinker by heating limestone and other materials for subsequent production of Portland Cement.

Laboratory analysis unit means units that burn samples of materials for the purpose of chemical or physical analysis. A laboratory analysis unit is not an incinerator, waste-burning kiln, an energy recovery unit or a small, remote incinerator under this subpart.

Load fraction means the actual heat input of an energy recovery unit divided by heat input during the performance test that established the minimum sorbent injection rate or minimum activated carbon injection rate, expressed as a fraction (e.g., for 50 percent load the load fraction is 0.5).

Low-level radioactive waste means waste material which contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable Federal or State standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or byproduct material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)).

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions.

Minimum voltage or amperage means 90 percent of the lowest test-run average voltage or amperage to the electrostatic precipitator measured during the most recent particulate matter or mercury performance test demonstrating compliance with the applicable emission limits.

Modification or *modified CISWI unit* means a CISWI unit that has been changed later than August 7, 2013 and that meets one of two criteria:

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

(2) Any physical change in the CISWI unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.

Municipal solid waste or municipal-type solid waste means household, commercial/retail, or institutional waste. Household waste includes material discarded by residential dwellings, hotels, motels, and other similar permanent or temporary housing. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes materials discarded by schools, by hospitals (nonmedical), by nonmanufacturing activities at prisons and government facilities, and other similar establishments or facilities. Household, commercial/retail, and institutional waste does include yard waste and refuse-derived fuel. Household, commercial/retail, and institutional waste does not include used oil; sewage sludge; wood pallets; construction, renovation, and demolition wastes (which include railroad ties and telephone poles); clean wood; industrial process or manufacturing wastes; medical waste; or motor vehicles (including motor vehicle parts or vehicle fluff).

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Operating day means a 24-hour period between 12:00 midnight and the following midnight during which any amount of solid waste is combusted at any time in the CISWI unit.

Modification or *modified CISWI unit* means a CISWI unit you have changed later than June 1, 2001 and that meets one of two criteria:

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

(2) Any physical change in the CISWI unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.

Part reclamation unit means a unit that burns coatings off parts (e.g., tools, equipment) so that the parts can be reconditioned and reused.

Particulate matter means total particulate matter emitted from CISWI units as measured by Method 5 or Method 29 of appendix A of this part.

Pathological waste means waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

Oxygen analyzer system means all equipment required to determine the oxygen content of a gas stream and used to monitor oxygen in the boiler or process heater flue gas, boiler or process heater, firebox, or other appropriate location. This definition includes oxygen trim systems and certified oxygen CEMS. The source owner or operator is responsible to install, calibrate, maintain, and operate the oxygen analyzer system in accordance with the manufacturer's recommendations.

Oxygen trim system means a system of monitors that is used to maintain excess air at the desired level in a combustion device. A typical system consists of a flue gas oxygen and/or carbon monoxide monitor that automatically provides a feedback signal to the combustion air controller.

Performance evaluation means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

Process change means any of the following physical or operational changes:

(1) A physical change (maintenance activities excluded) to the CISWI unit which may increase the emission rate of any air pollutant to which a standard applies;

(2) An operational change to the CISWI unit where a new type of non-hazardous secondary material is being combusted;

(3) A physical change (maintenance activities excluded) to the air pollution control devices used to comply with the emission limits for the CISWI unit (e.g., replacing an electrostatic precipitator with a fabric filter);

(4) An operational change to the air pollution control devices used to comply with the emission limits for the affected CISWI unit (e.g., change in the sorbent injection rate used for activated carbon injection).

Rack reclamation unit means a unit that burns the coatings off racks used to hold small items for application of a coating. The unit burns the coating overspray off the rack so the rack can be reused.

Raw mill means a ball or tube mill, vertical roller mill or other size reduction equipment, that is not part of an in-line kiln/raw mill, used to grind feed to the appropriate size. Moisture may be added or removed from the feed 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 unit and meeting two criteria:

(1) The reconstruction begins on or after June 1, 2001.

(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 unit (not including land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit.

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.

(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 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 air curtain incinerators 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 the period of time between the activation of the system and the first charge to the 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.

(3) Clean lumber.

[65 FR 75350, Dec. 1, 2000, as amended at 70 FR 55580, Sept. 22, 2005; 76 FR 15461, Mar. 21, 2011; 78 FR 9188, Feb. 7, 2013]

Table 1 to Subpart CCCC of Part 60—Emission Limitations

Link to an amendment published at 78 FR 9190, Feb. 7, 2013.

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
Cadmium	0.004 milligrams per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Performance test (Method 29 of appendix A of this part).
Carbon monoxide	157 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Performance test (Method 10, 10A, or 10B of appendix A of this part).
Dioxins/furans (toxic equivalency basis)	0.41 nanograms per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Performance test (Method 23 of appendix A of this part).
Hydrogen chloride	62 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Performance test (Method 26A of appendix A of this part).
Lead	0.04 milligrams per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Performance test (Method 29 of appendix A of this part).
Mercury	0.47 milligrams per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Performance test (Method 29 of appendix A of this part).
Opacity	10 percent	6-minute averages	Performance test (Method 9 of appendix A of this part).

Oxides of nitrogen	388 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Performance test (Method 7, 7A, 7C, 7D, or 7E of appendix A of this part).
Particulate matter	70 milligrams per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Performance test (Method 5 or 29 of appendix A of this part).
Sulfur dioxide	20 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Performance test (Method 6 or 6c of appendix A of this part.

[a] All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.

[66 FR 16606, Mar. 27, 2001]

TABLE 1 TO SUBPART CCCC OF PART 60—EMISSION LIMITATIONS FOR CISWI UNITS FOR WHICH CONSTRUCTION IS COMMENCED AFTER NOVEMBER 30, 1999, BUT NO LATER THAN JUNE 4, 2010, OR FOR WHICH MODIFICATION OR RECONSTRUCTION IS COMMENCED ON OR AFTER JUNE 1, 2001, BUT NO LATER THAN AUGUST 7, 2013

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
*	*	* * *	*
Carbon monoxide	157 parts per million by 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/Furan (toxic equivalency basis)	0.41 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).
Hydrogen chloride	62 parts per million by dry volume	3-run average (For Method 26, collect a minimum volume of 120 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meter per run)	Performance test (Method 26 or 26A at 40 CFR part 60, appendix A-8).
*	*	* * *	*
Nitrogen Oxides	388 parts per million by 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).
*	*	* * *	*
Sulfur Dioxide	20 parts per million by dry volume	3-run average (For Method 6, collect a minimum volume of 20 liters per run. For Method 6C, collect sample for a minimum duration of 1 hour per run)	Performance test (Method 6 or 6C at 40 CFR part 60, appendix A-4).

[a] All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.

[b] Incorporated by reference,*see*§ 60.17.

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Table 2 to Subpart CCCC of Part 60—Operating Limits for Wet Scrubbers

For these operating parameters	You must establish these operating limits	And monitoring using these minimum frequencies		
		Data measurement	Data recording	Averaging time
Charge rate	Maximum charge rate	Continuous	Every hour	Daily (batch units) 3-hour rolling (continuous and intermittent units) [a]
Pressure drop across the wet scrubber or amperage to wet scrubber	Minimum pressure drop or amperage	Continuous	Every 15 minutes	3-hour rolling [a]
Scrubber liquor flow rate	Minimum flow rate	Continuous	Every 15 minutes	3-hour rolling [a]
Scrubber liquor pH	Minimum pH	Continuous	Every 15 minutes	3-hour rolling [a]

[a] Calculated each hour as the average of the previous 3 operating hours.

[65 FR 75350, Dec. 1, 2000, as amended at 78 FR 9191, Feb. 7, 2013]

Table 3 to Subpart CCCC of Part 60—Toxic Equivalency Factors

Dioxin/furan congener	Toxic equivalency factor
2,3,7,8-tetrachlorinated dibenzo-p-dioxin	1
1,2,3,7,8-pentachlorinated dibenzo-p-dioxin	0.5
1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin	0.01
octachlorinated dibenzo-p-dioxin	0.001
2,3,7,8-tetrachlorinated dibenzofuran	0.1
2,3,4,7,8-pentachlorinated dibenzofuran	0.5
1,2,3,7,8-pentachlorinated dibenzofuran	0.05
1,2,3,4,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,7,8,9-hexachlorinated dibenzofuran	0.1
2,3,4,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzofuran	0.01
1,2,3,4,7,8,9-heptachlorinated dibenzofuran	0.01
octachlorinated dibenzofuran	0.001

Table 4 to Subpart CCCC of Part 60—Summary of Reporting Requirements [a]

Report	Due date	Contents	Reference

Preconstruction report	Prior to commencing construction	• Statement of intent to construct • Anticipated date of commencement of construction • Documentation for siting requirements • Waste management plan • Anticipated date of initial startup	§ 60.2190
Startup notification	Prior to initial startup	• Type of waste to be burned • Maximum design waste burning capacity • Anticipated maximum charge rate • If applicable, the petition for site-specific operating limits	§ 60.2195
Initial test report	No later than 60 days following the initial performance test	• Complete test report for the initial performance test • The values for the site-specific operating limits • Installation of bag leak detection system for fabric filter	§ 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	• Name and address • Statement and signature by responsible official • Date of report • Values for the operating limits	§§ 60.2205 and 60.2210.
		• Highest recorded 3-hour average and the lowest 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported	
		• If a performance test was conducted during the reporting period, the results of the test	
		• If a performance test was not conducted during the reporting period, a statement that the requirements of § 60.2155(a) were met	
		• Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours but less than 2 weeks	
		• 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	
Emission limitation or operating limit deviation report	By August 1 of that year for data collected during the first half of the	• Dates and times of deviation • Averaged and recorded data for those	§ 60.2215 and 60.2220.

	calendar year. By February 1 of the following year for data collected during the second half of the calendar year	dates • Duration and causes of each deviation and the corrective actions taken • Copy of operating limit monitoring data and any test reports • Dates, times and causes for monitor downtime incidents	
Qualified operator deviation notification	Within 10 days of deviation	• Statement of cause of deviation • Description of efforts to have an accessible qualified operator • The date a qualified operator will be accessible	§ 60.2225 (a)(1)
Qualified operator deviation status report	Every 4 weeks following deviation	• Description of efforts to have an accessible qualified operator • The date a qualified operator will be accessible • Request for approval to continue operation	§ 60.2225 (a)(2)
Qualified operator deviation notification of resumed operation	Prior to resuming operation	• Notification that you are resuming operation	§ 60.2225 (b)

[a] This table is only a summary, see the referenced sections of the rule for the complete requirements.

65 FR 75350, Dec. 1, 2000, as amended at 76 FR 15763, Mar. 21, 2011]

Table 5 to Subpart CCCC of Part 60—Emission Limitations for Incinerators That Commenced Construction After June 4, 2010, or That Commenced Reconstruction or Modification After September 21, 2011

Link to an amendment published at 78 FR 9191, Feb. 7, 2013.

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
Cadmium	0.0023 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 4 dry standard cubic meter per run)	Performance test (Method 29 at 40 CFR part 60, appendix A-8 of this part). Use ICPMS for the analytical finish.
Carbon Monoxide	12 parts per million by dry volume	30 day rolling average	Carbon Monoxide CEMS (Performance Specification 4A of this part, using an RA of 0.5 ppm instead of 5 ppm as specified in section 13.2. For the cylinder gas audit, ± 15% or 0.5 ppm, whichever is greater.) Use a span gas with a concentration of 20 ppm or less.
Dioxin/furan (Total Mass Basis)	0.052 nanograms per dry standard cubic meter	3-run average (collect a minimum volume of 4 dry standard cubic meter per run)	Performance test (Method 23 at 40 CFR part 60, appendix A-7).

Dioxin/furan (toxic equivalency basis)	0.13 nanograms per dry standard cubic meter	3-run average (collect a minimum volume of 4 dry standard cubic meter per run)	Performance test (Method 23 at 40 CFR part 60, appendix A-7).
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).
Hydrogen Chloride	0.091 part per million by dry volume	3-run average (For Method 26, collect a minimum volume of 200 liters per run. For Method 26A, collect a minimum volume of 3 dry standard cubic meter per run)	Performance test (Method 26 or 26A at 40 CFR part 60, appendix A-8).
Lead	0.0019 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 4 dry standard cubic meter per run)	Performance test (Method 29 of appendix A-8 at 40 CFR part 60). Use ICPMS for the analytical finish.
Mercury	0.00016 milligrams per dry standard cubic meter	3-run average (collect enough volume to meet a detection limit data quality objective of 0.03 µg/dry standard cubic meter)	Performance test (Method 29 or 30B at 40 CFR part 60, appendix A-8) or ASTM D6784-02 (Reapproved 2008) [b].
Nitrogen Oxides	23 parts per million dry volume	3-run average (1 hour minimum sample time per run)	Performance test (Method 7E at 40 CFR part 60, appendix A-4). Use a span gas with a concentration of 50 ppm or less.
Particulate matter (filterable)	18 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 2 dry standard cubic meters per run)	Performance test (Method 5 or 29 at 40 CFR part 60, appendix A-3 or appendix A-8 at 40 CFR part 60).
Sulfur dioxide	11 parts per million dry volume	3-run average (1 hour minimum sample time per run)	Performance test (Method 6 or 6C at 40 CFR part 60, appendix A-4. Use a span gas with a concentration of 20 ppm or less.

[a] All emission limitations are measured at 7 percent oxygen, dry basis at standard conditions. For dioxins/furans, you must meet either the Total Mass Limit or the toxic equivalency basis limit.

[b] Incorporated by reference,*see*§ 60.17.

[76 FR 15763, Mar. 21, 2011, as amended at 78 FR 9191, Feb. 7, 2013]

TABLE 5 TO SUBPART CCCC OF PART 60—EMISSION LIMITATIONS FOR INCINERATORS 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 [a]	Using this averaging time	And determining compliance using this method

* * * * * * *			
Carbon monoxide	17 parts per million by 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/furan (Total Mass Basis)	0.58 nanograms per dry standard cubic meter [c]	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).
* * * * * * *			
Hydrogen chloride	0.091 parts per million by 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	0.015 milligrams per dry standard cubic meter [c]	3-run average (collect a minimum volume of 4 dry standard cubic meters per run)	Performance test (Method 29 of appendix A-8 at 40 CFR part 60). Use ICPMS for the analytical finish.
Mercury	0.00084 milligrams per dry standard cubic meter [c]	3-run average (collect enough volume to meet a detection limit data quality objective of 0.03 ug/dry standard cubic meter)	Performance test (Method 29 or 30B at 40 CFR part 60, appendix A-8) or ASTM D6784-02 (Reapproved 2008).[b]
Nitrogen Oxides	23 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).
* * * * * * *			
Sulfur dioxide	11 parts per million dry volume	3-run average (1 hour minimum sample time per run)	Performance test (Method 6 or 6C at 40 CFR part 60, appendix A-4).
* * * * * * *			

[a] All emission limitations are measured at 7 percent oxygen, dry basis at standard conditions. For dioxins/furans, you must meet either the Total Mass Limit or the toxic equivalency basis limit.

[b] Incorporated by reference,*see*§ 60.17.

[c] If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 60.2155 if all of the other provisions of § 60.2155 are met. For all other pollutants that do not contain a footnote “c”, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

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 September 21, 2011

Link to an amendment published at 78 FR 9191, Feb. 7, 2013.

For the air pollutant	You must meet this emission limitation [a]		Using this averaging time	And determining compliance using this method
	Liquid/gas	Solids		
Cadmium	0.023 milligrams per dry standard cubic meter	0.00051 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	36 parts per million dry volume Coal—46 parts per million dry volume	Biomass—160 parts per million dry volume	30 day rolling average	Carbon Monoxide CEMS (Performance Specification 4A of this part, using a RA of 0.5 ppm instead of 5 ppm as specified in section 13.2. For the cylinder gas audit, ±15% or 0.5 ppm, whichever is greater. Use a span gas with a concentration of 100 ppm or less for a liquid/gas or coal-fed boiler. Use a span gas with a concentration of 300 ppm or less for a biomass-fed boiler.
Dioxins/furans (Total Mass Basis)	No Total Mass Basis limit, must meet the toxic equivalency basis limit below	0.068 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)	0.002 nanograms per dry standard cubic meter	0.011 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	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).
Hydrogen chloride	14 parts per million dry volume	0.45 parts per million dry volume	3-run average (For Method 26, collect a minimum volume of 200 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	0.00313 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	0.00025 milligrams per	0.00033 milligrams per	3-run average (collect enough	Performance test (Method 29 or 30B at 40 CFR part 60, appendix

	dry standard cubic meter	dry standard cubic meter	volume to meet an in-stack detection limit data quality objective of 0.03 ug/dscm)	A-8) or ASTM D6784-02 (Reapproved 2008).[b].
Oxides of nitrogen	76 parts per million dry volume	Biomass—290 parts per million dry volume Coal—340 parts per million dry volume	3-run average (1 hour minimum sample time per run)	Performance test (Method 7E at 40 CFR part 60, appendix A-4). Use a span gas with a concentration of 150 ppm or less for liquid/gas fuel boilers. Use a span gas with a concentration of 700 ppm or less for solid fuel boilers.
Particulate matter (filterable)	110 milligrams per dry standard cubic meter	250 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 a design capacity less than 250 MMBtu/hr; or PM CEMS (performance specification 11 of appendix B of this part) if the unit has a design capacity equal to or greater than 250 MMBtu/hr. Use Method 5 or 5I of Appendix A of this part and collect a minimum sample volume of 1 dscm per test run for the PM CEMS correlation testing.
Sulfur dioxide	720 parts per million dry volume	Biomass—6.2 parts per million dry volume Coal—650 parts per million dry volume	3-run average (1 hour minimum sample time per run)	Performance test (Method 6 or 6C at 40 CFR part 60, appendix A-4. Use a span gas with a concentration of 20 ppm or less for a biomass-fed boiler. Use a span gas with a concentration of 1500 ppm or less for a liquid/gas boiler or coal-fed boiler.

[a] 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.

[b] Incorporated by reference,*see*§ 60.17.

[76 FR 15763, Mar. 21, 2011, as amended at 78 FR 9192, Feb. 7, 2013]

For the air pollutant	You must meet this emission limitation [a]		Using this averaging time	And determining compliance using this method
	Liquid/Gas	Solids		
Cadmium	0.023 milligrams per dry standard cubic meter	Biomass—0.0014 milligrams per dry standard cubic meter. [c] Coal—0.0095 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. [c] Coal—5.1 nanograms per dry standard cubic meter. [c]	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. [c]	Biomass—0.076 nanograms per dry standard cubic meter. [c] Coal—0.075 nanograms per dry standard cubic meter. [c]	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).
Hydrogen chloride	14 parts per million dry volume	Biomass—0.20 parts per million dry volume Coal—13 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. [c] Coal—0.14 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. [c]	Biomass—0.0022 milligrams per dry standard cubic meter Coal—0.016 milligrams per	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)b.

		dry standard cubic meter		
Oxides of nitrogen	76 parts per million dry volume	Biomass—290 parts per million dry volume Coal—340 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—160 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—650 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).

[a] 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.

[b] Incorporated by reference,*see*§ 60.17.

[c] If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 60.2155 if all of the other provisions of § 60.2155 are met. For all other pollutants that do not contain a footnote “c”, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

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 September 21, 2011

Link to an amendment published at 78 FR 9191, Feb. 7, 2013.

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
Cadmium	0.00048 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 4 dry	Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish.

		standard cubic meters per run)	
Carbon monoxide	90 parts per million dry volume	30-day rolling average	Carbon monoxide CEMS (Performance Specification 4A of this part, using an RA of 1 ppm instead of 5 ppm as specified in section 13.2. For the cylinder gas audit, ± 15% or 0.5 ppm, whichever is greater). Use a span gas with a concentration of 200 ppm or less.
Dioxins/furans (total mass basis)	0.090 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)	0.0030 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).
Hydrogen chloride	3.0 parts per million dry volume	3-run average (1 hour minimum sample time per run) or 30-day rolling average if HCl CEMS are used	Performance test (Method 321 at 40 CFR part 63, appendix A) or HCl CEMS if a wet scrubber is not used.
Lead	0.0026 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 4 dry standard cubic meters)	Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish.
Mercury	0.0062 milligrams per dry standard cubic meter	30-day rolling average	Mercury CEMS or sorbent trap monitoring system (performance specification 12A or 12B, respectively, of appendix B of this part.)
Oxides of nitrogen	200 [b]parts per million dry volume	30-day rolling average	NO_XContinuous Emissions Monitoring System (performance specification 2 of appendix B of this part). Use a span gas with a concentration of 400 ppm or less.
Particulate matter (filterable)	2.5 milligrams per dry standard cubic meter	30-day rolling average	PM Continuous Emissions Monitoring System (performance specification 11 of appendix B of this part).
Sulfur dioxide	38 parts per million dry volume	30-day rolling average	Sulfur dioxide Continuous Emissions Monitoring System (performance specification 2 of appendix B of this part). Use a span gas with a concentration of 100 ppm or less.

[a] 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.

[b] NO_Xlimits for new waste-burning kilns based on data for best-performing similar source, Portland Cement kilns.*See*"CISWI Emission Limit Calculations for Existing and New Sources" for details.

[78 FR 9193, Feb. 7, 2013]

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
Cadmium	0.0014 milligrams per dry standard cubic meter. [b]	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 (preheater/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. [b]	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. [b]	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).
Hydrogen chloride	3.0 parts per million dry volume. [b]	3-run average (1 hour minimum sample time per run) or 30-day rolling average if HCl CEMS are used	Performance test (Method 321 at 40 CFR part 63, appendix A) or HCl CEMS if a wet scrubber or dry scrubber is not used.
Lead	0.014 milligrams per dry standard cubic meter. [b]	3-run average (collect a minimum volume of 4 dry standard cubic meters)	Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish.
Mercury	0.0037 milligrams per dry standard cubic meter	30-day rolling average	Mercury CEMS or sorbent trap monitoring system (performance specification 12A or 12B, respectively, of appendix B of this part.)
Oxides of nitrogen	200 parts per million dry volume	30-day rolling average	NOx CEMS (performance specification 2 of appendix B and procedure 1 of appendix F of this part).
Particulate matter (filterable)	2.2 milligrams per dry standard cubic meter	30-day rolling average	PM CPMS (as specified in § 60.2145(x)).
Sulfur dioxide	28 parts per million dry volume	30-day rolling average	Sulfur dioxide CEMS (performance specification 2 of appendix B and procedure 1 of appendix F of this part).

[a] 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.

[b] If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 60.2155 if all of the other provisions of § 60.2155 are met. For all other pollutants that do not contain a footnote “b”, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

Table 8 to Subpart CCCC of Part 60—Emission Limitations for Small, Remote Incinerators That Commenced Construction After June 4, 2010, or That Commenced Reconstruction or Modification After September 21, 2011

Link to an amendment published at 78 FR 9194, Feb. 7, 2013.

For the air pollutant	You must meet this emission limitation [a]	Using this averaging time	And determining compliance using this method
Cadmium	0.61 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 1 dry standard cubic meter per run)	Performance test (Method 29 at 40 CFR part 60, appendix A-8).
Carbon monoxide	12 parts per million dry volume	24 hour block average	Carbon monoxide CEMS (Performance Specification 4A of this part, using a RA of 0.5 ppm instead of 5 ppm as specified in section 13.2. For the cylinder gas audit, ± 15% or 0.5 ppm, whichever is greater.). Use a span gas with a concentration of 25 ppm or less.
Dioxins/furans (total mass basis)	1,200 nanograms per dry standard cubic meter	3-run average (collect a minimum volume of 1 dry standard cubic meter per run)	Performance test (Method 23 at 40 CFR part 60, appendix A-7).
Dioxins/furans (toxic equivalency basis)	31 nanograms per dry standard cubic meter	3-run average (collect a minimum volume of 1 dry standard cubic meter per run)	Performance test (Method 23 at 40 CFR part 60, appendix A-7).
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).
Hydrogen chloride	200 parts per million by dry volume	3-run average (For Method 26, collect a minimum volume of 60 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meter per run)	Performance test (Method 26 or 26A at 40 CFR part 60, appendix A-8).
Lead	0.26 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 1 dry standard cubic)	Performance test (Method 29 at 40 CFR part 60,appendix A-8). Use ICPMS for the analytical finish.
Mercury	0.0035 milligrams per dry standard cubic meter	3-run average (For Method 29 and ASTM D6784-02 (Reapproved 2008) [b], collect a minimum volume of 2 dry standard cubic meters per run. For Method 30B, collect a minimum volume as specified in Method 30B at 40 CFR part 60, appendix A)	Performance test (Method 29 or 30B at 40 CFR part 60, appendix A-8) or ASTM D6784-02 (Reapproved 2008)b.

Oxides of nitrogen	78 parts per million dry volume	3-run average (1 hour minimum sample time per run)	Performance test (Method 7E at 40 CFR part 60,appendix A-4). Use a span gas with a concentration of 150 ppm or less.
Particulate matter (filterable)	230 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 1 dry standard cubic meter)	Performance test (Method 5 or 29 at 40 CFR part 60, appendix A-3 or appendix A-8).
Sulfur dioxide	1.2 parts per million dry volume	3-run average (1 hour minimum sample time per run)	Performance test (Method 6 or 6c at 40 CFR part 60, appendix A-4. Use a span gas with a concentration of 5 ppm or less.

[a] All emission limitations (except for opacity) 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.

[b] Incorporated by reference,*see*§ 60.17.

[78 FR 9194, Feb. 7, 2013]

TABLE 8 TO SUBPART CCCC OF PART 60—EMISSION LIMITATIONS FOR SMALL, REMOTE INCINERATORS 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 [a]	Using this averaging time	And determining compliance using this method
Cadmium	0.67 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 1 dry standard cubic meters per run)	Performance test (Method 29 at 40 CFR part 60, appendix A-8).
Carbon monoxide	13 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)	1,800 nanograms per dry standard cubic meter. [b]	3-run average (collect a minimum volume of 1 dry standard cubic meters per run)	Performance test (Method 23 at 40 CFR part 60, appendix A-7).
Dioxins/furans (toxic equivalency basis)	31 nanograms per dry standard cubic meter. [b]	3-run average (collect a minimum volume of 1 dry standard cubic meters)	Performance test (Method 23 at 40 CFR part 60, appendix A-7).
Fugitive ash	Visible emissions for no more than 5 percent of the hourly observation period	Three 1-hour observation periods	Visible emissions test (Method 22 at 40 CFR part 60, appendix A-7).
Hydrogen chloride	200 parts per million by dry volume	3-run average (For Method 26, collect a minimum volume of 60 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meter per run)	Performance test (Method 26 or 26A at 40 CFR part 60, appendix A-8).
Lead	2.0 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 1 dry standard cubic meters)	Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish.

Mercury	0.0035 milligrams per dry standard cubic meter	3-run average (For Method 29 and ASTM D6784-02 (Reapproved 2008) [b], collect a minimum volume of 2 dry standard cubic meters per run. For Method 30B, collect a minimum volume as specified in Method 30B at 40 CFR part 60, appendix A)	Performance test (Method 29 or 30B at 40 CFR part 60, appendix A-8) or ASTM D6784-02 (Reapproved 2008). [b]
Oxides of nitrogen	170 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)	270 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 1 dry standard cubic meters)	Performance test (Method 5 or 29 at 40 CFR part 60, appendix A-3 or appendix A-8).
Sulfur dioxide	1.2 parts per million dry volume	3-run average (1 hour minimum sample time per run)	Performance test (Method 6 or 6c at 40 CFR part 60, appendix A-4).

[a] 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.

[b] Incorporated by reference,*see*§ 60.17.

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