

# Electronic Code of Federal Regulations (e-CFR)

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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 for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001**

**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?**

This subpart takes effect on June 1, 2001. Some of the requirements in this subpart apply to planning the CISWI unit and must be completed even before construction is initiated on 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.

#### **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?**

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

- (1) Commenced construction after November 30, 1999.
- (2) Commenced reconstruction or modification on or after June 1, 2001.

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

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

This subpart exempts fifteen types of units described in paragraphs (a) through (o) of this section.

(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) *Agricultural 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 agricultural wastes as defined in §60.2265 are not subject to this subpart if you meet the two requirements specified in paragraphs (b)(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 agricultural waste burned, and the weight of all other fuels and wastes burned in the unit.

(c) *Municipal waste combustion units.* Incineration units that meet either of the two criteria specified in paragraph (c)(1) or (2) of this section.

(1) Are regulated under subpart Ea of this part (Standards of Performance for Municipal Waste Combustors); subpart Eb of this part (Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994); subpart Cb of this part (Emission Guidelines and Compliance Time for Large Municipal Combustors that are Constructed on or Before September 20, 1994); AAAA of this part (Standards of Performance for New Stationary Sources: Small Municipal Waste Combustion Units); or subpart BBBB of this part (Emission Guidelines for Existing Stationary Sources: Small Municipal Waste Combustion Units).

(2) Burn greater than 30 percent municipal solid waste or refuse-derived fuel, as defined in subpart Ea, subpart Eb, subpart AAAA, and subpart BBBB of this part, and that have the capacity to burn less than 35 tons (32 megagrams) per day of municipal solid waste or refuse-derived fuel, if you meet the two requirements in paragraphs (c)(2)(i) and (ii) of this section.

(i) Notify the Administrator that the unit meets these criteria.

(ii) Keep records on a calendar quarter basis of the weight of municipal solid waste burned, and the weight of all other fuels and wastes burned in the unit.

(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 notify the Administrator that the unit meets all of these criteria.

(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 notify the Administrator that the unit meets all of these criteria.

(g) *Hazardous waste combustion units.* Units that meet either of the two criteria specified in paragraph (g)(1) or (2) of this section.

(1) Units for which you are required to get a permit under section 3005 of the Solid Waste Disposal Act.

(2) Units regulated under subpart EEE of 40 CFR part 63 (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors).

(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) *Cyclonic barrel burners.* (See §60.2265)

(k) *Rack, part, and drum reclamation units.* (See §60.2265)

(l) *Cement kilns.* Kilns regulated under subpart LLL of part 63 of this chapter (National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry).

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

(n) *Chemical recovery units.* 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 seven types of units described in paragraphs (n)(1) through (7) of this section 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/residues 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.

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

### **§ 60.2025 What if my chemical recovery unit is not listed in §60.2020(n)?**

(a) If your chemical recovery unit is not listed in §60.2020(n), you can petition the Administrator to add your unit to the list. The petition must contain the six items in paragraphs (a)(1) through (6) of this section.

(1) A description of the source of the materials being burned.

(2) A description of the composition of the materials being burned, highlighting the chemical constituents in these materials that are recovered.

(3) A description (including a process flow diagram) of the process in which the materials are burned, highlighting the type, design, and operation of the equipment used in this process.

(4) A description (including a process flow diagram) of the chemical constituent recovery process, highlighting the type, design, and operation of the equipment used in this process.

(5) A description of the commercial markets for the recovered chemical constituents and their use.

(6) The composition of the recovered chemical constituents and the composition of these chemical constituents as they are bought and sold in commercial markets.

(b) Until the Administrator approves your petition, the incineration unit is covered by this subpart.

(c) If a petition is approved, the Administrator will amend §60.2020(n) to add the unit to the list of chemical recovery units.

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

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

(b) In delegating implementation and enforcement authority of this subpart to 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 (7) 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) The requirements in §60.2025.

(6) The requirements in §60.2115.

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

### **§ 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?**

- (a) You must prepare a siting analysis if you plan to commence construction of a CISWI unit after December 1, 2000.
- (b) 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.

#### **§ 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 correct malfunctions or conditions that may lead to malfunction.

(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.

### **§ 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) Responses to malfunctions or conditions that may lead to malfunction.

(e) Discussion of operating problems encountered by attendees.

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

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

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

(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?**

You must meet the emission limitations specified in Table 1 of this subpart 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.

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

(a) If you use a wet scrubber to comply with the emission limitations, you must establish operating limits for 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 scrubber, which is calculated as 90 percent of the 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 wet scrubber, which is calculated as 90 percent of the average amperage to the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

(3) Minimum scrubber liquor flow rate, which is calculated as 90 percent of the average liquor flow rate at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(4) Minimum scrubber liquor pH, which is calculated as 90 percent of the average liquor pH at the inlet to the wet 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.

### **§ 60.2115 What if I do not use a wet scrubber to comply with the emission limitations?**

If you use an air pollution control device other than a wet scrubber, or limit emissions in some other manner, to comply with the emission limitations under §60.2105, you must petition the 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.

### **§ 60.2120 What happens during periods of startup, shutdown, and malfunction?**

- (a) The emission limitations and operating limits apply at all times except during CISWI unit startups, shutdowns, or malfunctions.
- (b) Each malfunction must last no longer than 3 hours.

### **Performance Testing**

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

- (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.
- (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:

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

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<sub>2</sub>= oxygen concentration measured on a dry basis, percent.

(g) You must determine dioxins/furans toxic equivalency by following the procedures in paragraphs (g)(1) through (3) of this section.

(1) Measure the concentration of each dioxin/furan tetra-through octachlorinated-congener emitted using EPA Method 23.

(2) For each dioxin/furan (tetra-through octachlorinated) congener measured in accordance with paragraph (g)(1) of this section, multiply the congener 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.

### **§ 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.

### **Initial Compliance Requirements**

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

You must conduct an initial performance test, as required under §60.8, to determine compliance with the emission limitations in Table 1 of this subpart and to establish operating limits using the procedure in §60.2110 or §60.2115. The initial performance test must be conducted using the test methods listed in Table 1 of this subpart and the procedures in §60.2125.

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

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.

### **Continuous Compliance Requirements**

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

(a) You must conduct an annual performance test for particulate matter, hydrogen chloride, and opacity for each CISWI unit as required under §60.8 to determine compliance with the emission limitations. The annual performance test must be conducted using the test methods listed in Table 1 of this subpart and the procedures in §60.2125.

(b) You must continuously monitor the operating parameters specified in §60.2110 or established under §60.2115. Operation above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. Three-hour rolling average values are used to determine compliance (except for baghouse leak detection system alarms) unless a different averaging period is established under §60.2115. Operating limits do not apply during performance tests.

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

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

You must conduct annual performance tests for particulate matter, hydrogen chloride, and opacity within 12 months following the initial performance test. Conduct subsequent annual performance tests within 12 months following the previous one.

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

(a) You can test less often for a given pollutant if you have test data for at least 3 years, and all performance tests for the pollutant (particulate matter, hydrogen chloride, or opacity) over 3 consecutive years show that you comply with the emission limitation. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the 3rd year and no more than 36 months following the previous performance test.

(b) If your CISWI unit continues to meet the emission limitation for particulate matter, hydrogen chloride, or opacity, you may choose to conduct performance tests for these pollutants every 3rd year, but each test must be within 36 months of the previous performance test.

(c) If a performance test shows a deviation from an emission limitation for particulate matter, hydrogen chloride, or opacity, you must conduct annual performance tests for that pollutant until all performance tests over a 3-year period show compliance.

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

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

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

## **Monitoring**

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

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

(b) If you use a fabric filter to comply with the requirements of this subpart, 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 sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard 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 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.

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

(a) Except for monitor malfunctions, associated repairs, and required quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments of the monitoring system), you must conduct all monitoring at all times the CISWI unit is operating.

(b) Do not use data recorded during monitor malfunctions, associated repairs, and required quality assurance or quality control activities for meeting the requirements of this subpart, including data averages and calculations. You must use all the data collected during all other periods in assessing compliance with the operating limits.

### **Recordkeeping and Reporting**

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

You must maintain the fourteen items (as applicable) as specified in paragraphs (a) through (n) 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 §60.2115, 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) Identification of calendar dates and times for which monitoring systems used to monitor operating limits were inoperative, inactive, malfunctioning, or out of control (except for downtime associated with zero and span and other routine calibration checks). Identify the operating parameters not measured, the duration, reasons for not obtaining the data, and a description of corrective actions taken.

(d) Identification of calendar dates, times, and durations of malfunctions, and a description of the malfunction and the corrective action taken.

(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 §60.2115 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).

#### **§ 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?**

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, and that no monitoring system used to determine compliance with the operating limits was inoperative, inactive, malfunctioning or out of control.

(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.

**§ 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 each deviation from the emission limitations or operating limits 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.

(e) The dates, times, number, duration, and causes for monitor downtime incidents (other than downtime associated with zero, span, and other routine calibration checks).

(f) Whether each deviation occurred during a period of startup, shutdown, or malfunction, or during another period.

**§ 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?**

Yes. You must submit notifications as provided by §60.7.

**§ 60.2235 In what form can I submit my reports?**

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

**§ 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 must operate pursuant to a permit issued under section 129(e) and title V of the Clean Air Act by the later of the two dates in paragraphs (a) and (b) of this section.

(a) Thirty-six months after December 1, 2000.

(b) The effective date of the title V permit program to which your unit is subject. If your unit is subject to title V as a result of some triggering requirement(s) other than this subpart (for example, being a major source), then your unit may be required to apply for and obtain a title V permit prior to the deadlines noted above. If more than one requirement triggers the requirement to apply for a title V permit, the 12-month timeframe for filing a title V application is triggered by the requirement which first causes the source to be subject to title V.

**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?**

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

(1) The opacity limitation is 10 percent (6-minute average), except as described in paragraph (a)(2) of this section.

(2) The opacity limitation is 35 percent (6-minute average) during the startup period that is within the first 30 minutes of operation.

(b) Except during malfunctions, the requirements of this subpart apply at all times, and each malfunction must not exceed 3 hours.

### **§ 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 (each 6-minute average) 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.

## **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.

*Agricultural waste* means vegetative agricultural materials such as nut and grain hulls and chaff (e.g., almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds, and other vegetative waste materials generated as a result of agricultural operations.

*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.)

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

*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.

*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.

*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 combustion unit that combusts commercial or industrial waste (as defined in this subpart), that is a distinct operating unit of any commercial or industrial facility (including field erected, modular, and custom built incineration units operating with starved or excess air), and any air curtain incinerator that is a distinct operating unit of any commercial or industrial facility that does not comply with the opacity limits under this subpart applicable to air curtain incinerators burning commercial or industrial waste. While not all CISWI units will include all of the following components, a CISWI unit includes, but is not limited to, the commercial or industrial 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 commercial or industrial 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. A CISWI unit does not include any of the fifteen types of units described in §60.2555 of this subpart, nor does it include any combustion turbine or reciprocating internal combustion engine.

*Commercial or industrial waste* means solid waste (as defined in this subpart) that is combusted at any commercial or industrial facility using controlled flame combustion in an enclosed, distinct operating unit: Whose design does not provide for energy recovery (as defined in this subpart); or operated without energy recovery (as defined in this subpart). Commercial or industrial waste also means solid waste (as defined in this subpart) combusted in an air curtain incinerator that is a distinct operating unit of any commercial or industrial facility.

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

*Cyclonic barrel burner* 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.

*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; or
- (3) Fails to meet any emission limitation, operating limit, or operator qualification and accessibility requirement in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

*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.

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

*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.

*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.

*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).

*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.

*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.

*Shutdown* means the period of time after all waste has been combusted in the primary chamber.

*Solid waste* means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not

include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014).

*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.

*Wet scrubber* means an add-on air pollution control device that utilizes 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]

**Table 1 to Subpart CCCC of Part 60—Emission Limitations**

<b>For the air pollutant</b>	<b>You must meet this emission limitation<sup>a</sup></b>	<b>Using this averaging time</b>	<b>And determining compliance using this method</b>
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).

<sup>a</sup>All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.

[66 FR 16606, Mar. 27, 2001]

**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) <sup>a</sup>
Pressure drop across the wet scrubber or amperage to wet scrubber	Minimum pressure drop or amperage	Continuous	Every 15 minutes	3-hour rolling <sup>a</sup>
Scrubber liquor flow rate	Minimum flow rate	Continuous	Every 15 minutes	3-hour rolling <sup>a</sup>
Scrubber liquor pH	Minimum pH	Continuous	Every 15 minutes	3-hour rolling <sup>a</sup>

<sup>a</sup>Calculated each hour as the average of the previous 3 operating hours.

**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<sup>a</sup>**

<b>Report</b>	<b>Due date</b>	<b>Contents</b>	<b>Reference</b>
Preconstruction report	Prior to commencing construction	<ul style="list-style-type: none"> <li>• Statement of intent to construct</li> <li>• Anticipated date of commencement of construction</li> <li>• Documentation for siting requirements</li> <li>• Waste management plan</li> <li>• Anticipated date of initial startup</li> </ul>	§60.2190
Startup notification	Prior to initial startup	<ul style="list-style-type: none"> <li>• Type of waste to be burned</li> <li>• Maximum design waste burning capacity</li> <li>• Anticipated maximum charge rate</li> <li>• If applicable, the petition for site-specific operating limits</li> </ul>	§60.2195
Initial test report	No later than 60 days following the initial performance test	<ul style="list-style-type: none"> <li>• Complete test report for the initial performance test</li> <li>• The values for the site-specific operating limits</li> <li>• Installation of bag leak detection system for fabric filter</li> </ul>	§60.2200
Annual report	No later than 12 months following the submission of the initial test report. Subsequent reports are to be submitted no more than 12 months following the previous report	<ul style="list-style-type: none"> <li>• Name and address</li> <li>• Statement and signature by responsible official</li> <li>• Date of report</li> <li>• Values for the operating limits</li> <li>• If no deviations or malfunctions were reported, a statement that no deviations occurred during the reporting period</li> </ul>	§§60.2205 and 60.2210

		<ul style="list-style-type: none"> <li>• Highest recorded 3-hour average and the lowest 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported</li> <li>• Information for deviations or malfunctions recorded under §60.2175(b)(6) and (c) through (e)</li> <li>• If a performance test was conducted during the reporting period, the results of the test</li> <li>• If a performance test was not conducted during the reporting period, a statement that the requirements of §60.2155(a) or (b) were met</li> <li>• Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours but less than 2 weeks</li> </ul>	
Emission limitation or operating limit deviation report	By August 1 of that year for data collected during the first half of the calendar year. By February 1 of the following year for data collected during the second half of the calendar year	<ul style="list-style-type: none"> <li>• Dates and times of deviation</li> <li>• Averaged and recorded data for those dates</li> <li>• Duration and causes of each deviation and the corrective actions taken</li> <li>• Copy of operating limit monitoring data and any test reports</li> <li>• Dates, times, and causes for monitor downtime incidents</li> <li>• Whether each deviation occurred during a period of startup, shutdown, or malfunction</li> </ul>	§60.2215 and §60.2220
Qualified operator deviation notification	Within 10 days of deviation	<ul style="list-style-type: none"> <li>• Statement of cause of deviation</li> <li>• Description of efforts to have an accessible qualified operator</li> <li>• The date a qualified operator will be accessible</li> </ul>	§60.2225(a)(1)



Qualified operator deviation status report	Every 4 weeks following deviation	<ul style="list-style-type: none"> <li>• Description of efforts to have an accessible qualified operator</li> <li>• The date a qualified operator will be accessible</li> <li>• Request for approval to continue operation</li> </ul>	§60.2225(a)(2)
Qualified operator deviation notification of resumed operation	Prior to resuming operation	<ul style="list-style-type: none"> <li>• Notification that you are resuming operation</li> </ul>	§60.2225(b)

<sup>a</sup>This table is only a summary, see the referenced sections of the rule for the complete requirements.