



DIVISION OF ENVIRONMENTAL QUALITY

**GENERAL AIR PERMIT FOR
TITLE V AIR CURTAIN INCINERATORS**

PERMIT NUMBER: 2370-AGP-000

IS ISSUED TO:

All Qualifying Title V Air Curtain Incinerators within the State of Arkansas

PURSUANT TO THE RULES OF THE ARKANSAS OPERATING AIR PERMIT PROGRAM, 8 CAR PT. 42: THIS PERMIT AUTHORIZES THE ABOVE REFERENCED PERMITTEE TO INSTALL, OPERATE, AND MAINTAIN THE EQUIPMENT AND EMISSION UNITS DESCRIBED IN THE NOTICE OF INTENT AND ON THE FOLLOWING PAGES. THIS PERMIT IS VALID BETWEEN:

December 14, 2026 AND December 13, 2031

THE PERMITTEE IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

A handwritten signature in black ink, appearing to read "Demetria Kimbrough", is written over a horizontal line.

Demetria Kimbrough
Deputy Director, Office of Air Quality

February 19, 2026

Date

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List of Acronyms and Abbreviations

Ark. Code Ann.	Arkansas Code Annotated
AFIN	Arkansas DEQ Facility Identification Number
CAR	Code of Arkansas Rules
C.F.R.	Code of Federal Regulations
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring System
HAP	Hazardous Air Pollutant
Hp	Horsepower
lb/hr	Pound Per Hour
NESHAP	National Emission Standards (for) Hazardous Air Pollutants
MVAC	Motor Vehicle Air Conditioner
No.	Number
NOI	Notice of Intent
NO _x	Nitrogen Oxide
NSPS	New Source Performance Standards
PM	Particulate Matter
PM ₁₀	Particulate Matter Equal To Or Smaller Than Ten Microns
PM _{2.5}	Particulate Matter Equal To Or Smaller Than 2.5 Microns
SO ₂	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction Plan
Tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

SECTION I: INTRODUCTION

Summary of Permit Activity

This permit is a renewal of Air Permit #2370-AGP-000 for certain Title V Air Curtain Incinerators in Arkansas (referred to as either the “General Permit” or “GP”). Changes to the General Permit include:

1. Update citations and verbiage throughout the permit to be consistent with Division of Environmental Quality standards.
2. Increase HAP emissions to include HAPS that were erroneously excluded in the past.
3. Add acetone emissions.
4. Removed Title VI provisions from the permit; these are now included in the NOI.
5. On April 11, 2024, the U.S. Environmental Protection Agency removed Title V permit requirements for certain air curtain incinerators (ACIs) that burn only wood waste, clean lumber, yard waste, or a mixture of these three types of waste. ACI subject to 40 CFR Part 60 Subpart CCCC, Commercial and Industrial Solid Waste Incineration Unit (CISWI), are still required to obtain a Title V permit. ACI subject to 40 CFR Part 60 Subpart(s) EEEE & AAAA, are not required to obtain a TV permit because they meet EPA requirements to exempt them. The Division of Environmental Quality only offers a Title V general permit for ACI’s, as it satisfies the most conservative regulatory requirements for ACI’s that would qualify for a general permit. A facility may apply for an individual minor source permit if a minor source permit is an option.

Permitted emission rates are increasing by 0.49 tpy Total HAPs and 0.01 tpy Acetone.

Applicability

This Title V General Operating Air Permit is available to all facilities which operate one or more air curtain incinerators that meet the requirements of this permit. This permit is one permitting option available to such facilities.

The requirements of this Title V General Operating Air Permit are only applicable to those facilities which apply for and obtain this permit. Any facilities operating under individual ADEQ permits are subject to the requirements contained in those respective permits.

On April 11, 2024, the U.S. Environmental Protection Agency removed Title V permit requirements for certain air curtain incinerators (ACIs) that burn only wood waste, clean lumber, yard waste, or a mixture of these three types of waste.

ACI subject to 40 CFR Part 60 Subpart CCCC, Commercial and Industrial Solid Waste Incineration Unit (CISWI), are still required to obtain a Title V permit. ACI subject to 40 CFR Part 60 Subpart(s) EEEE & AAAA, are not required to obtain a TV permit because they meet EPA requirements to exempt them.

The Division of Environmental Quality only offers a Title V general permit for ACI's, as it satisfies the most conservative regulatory requirements for ACI's that would qualify for a general permit. A facility may apply for an individual minor source permit if a minor source permit is an option.

Definitions

Clean wood or clean lumber – 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.

Wood waste – untreated wood and untreated wood products, including tree stumps (whole or chipped), trees, tree limbs (whole or chipped), bark, sawdust, chips, scraps, slabs, millings, and shavings. Wood waste does not include (1) grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands; (2) construction, renovation, or demolition wastes; and (3) clean lumber.

Yard waste - 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. Yard waste does not include construction, renovation, or demolition wastes and clean wood.

Process Description

This general permit has been developed for air curtain incinerator (ACI) facilities. An ACI is an incineration unit operating by forcefully projecting a curtain of air across an open, integrated combustion chamber (fire box) or open pit or trench (trench burner) in which combustion occurs. ACIs covered under this general permit may only burn wood waste, clean lumber, yard waste, or a mixture of all three, depending on the restrictions of the subpart applicable to the ACI. ACIs can be stationary or mobile, and the permit does not allow stationary engines.

The facility may also use nonroad engines that are exempt from stationary source regulation under the Clean Air Act definition of stationary source. These engines cannot stay in the same location for more than 12 months or will lose the exemption.

Rules and Regulations

The following table contains the rules and regulations applicable to this permit. The listed federal regulations that are in effect as of the effective date of the General Permit renewal shall be applicable, as well as any subsequent amendments to such regulations, during the pendency of each General Permit renewal.

Rules and Regulations
Arkansas Air Pollution Control Code, 8 CAR pt. 40, effective March 14, 2016
Rules of the Arkansas Plan of Implementation for Air Pollution Control, 8 CAR pt. 41, effective May 6, 2022
Rules of the Arkansas Operating Air Permit Program, 8 CAR pt. 42, effective March 14, 2016
40 C.F.R. Part 60 Subpart AAAA – <i>Standards of Performance for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001</i>
40 C.F.R. Part 60 Subpart CCCC – <i>Standards of Performance for Commercial and Industrial Solid Waste Incineration Units</i>
40 C.F.R. Part 60 Subpart EEEE – <i>Standards of Performance for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004 or for Which Modification or Reconstruction is Commenced After June 16, 2006</i>

Emission Summary

The following table is a summary of emissions from the facility. This table, in itself, is not an enforceable condition of the permit.

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
Total Allowable Emissions		PM	N/A	99.5
		PM ₁₀		99.5
		PM _{2.5}		8.5
		SO ₂		0.8
		VOC		8.5
		CO		19.9
		NO _x		30.6
HAPs		Single HAPs	N/A	1.52
		Total HAPs		3.43
Air Contaminants		Acetone	N/A	0.01

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SECTION II: PERMIT HISTORY

The initial general permit was issued on December 14, 2016.

The first renewal of the Air Curtain Incinerator General permit was issued December 14, 2021.
There were no changes made to the general permit during this renewal.

SECTION III: SPECIFIC CONDITIONS

Specific Conditions

1. The permittee shall comply with all emission rates and applicable requirements identified in the NOI submitted to and approved by the Division of Environmental Quality for the facility. [8 CAR § 41-605 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
2. The permittee shall not exceed the emission rates set forth in the following table. The sources covered under this condition include all air pollution emitting activities at the facility. [8 CAR § 41-401 et seq. and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
N/A	Facility Wide	PM ₁₀	N/A	99.5
		PM _{2.5}		8.5
		SO ₂		0.8
		VOC		8.5
		CO		19.9
		NO _x		30.6

3. The permittee shall not exceed the criteria pollutant (PM₁₀, SO₂, VOC, CO, NO_x) emission limits established in the Confirmation Letter for this General Permit. The Confirmation Letter is considered part of the General Permit. The permittee must keep a copy of the letter at the nearest manned facility at all times. [8 CAR § 41-401 et seq. and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
4. The permittee shall not exceed the emission rates set forth in the following table. The sources covered under this condition include all air pollution emitting activities at the facility. [8 CAR § 40-701 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
N/A	Facility Wide	PM	N/A	99.5
		Single HAP		1.52
		Total HAP		3.43
		Acetone		0.01

5. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Limit	Regulatory Citation
Air Curtain Incinerator	10%	8 CAR § 41-204 and 40 C.F.R. § 60.1445(a)(1), 40 C.F.R. § 60.2250 (a), or 40 C.F.R. § 60.3066(a)(1)
Air Curtain Incinerator During Startup	35%	8 CAR § 41-204 and 40 C.F.R. § 60.1445(a)(2), 40 C.F.R. § 60.2250 (b), or 40 C.F.R. § 60.3066(a)(2)

6. The permittee shall not cause or permit the emission of air contaminants, including odors or water vapor and including an air contaminant whose emission is not otherwise prohibited by 8 CAR pt. 40, if the emission of the air contaminant constitutes air pollution within the meaning of Ark. Code Ann. § 8-4-303. [8 CAR § 40-701 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
7. The permittee shall not conduct operations in such a manner as to unnecessarily cause air contaminants and other pollutants to become airborne. [8 CAR § 40-801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
8. The permittee shall not exceed a throughput of 15,300 tons of waste incinerated at the air curtain incinerator per rolling 12-month period to show compliance with the emission rates in Specific Conditions #2 and #4. [8 CAR § 41-605 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
9. The permittee shall keep and maintain the manufacturer's specification for the air curtain incinerator stating the maximum hourly throughput rate of the unit, and the permittee shall record the hours the unit is operated. Using the hourly throughput and the recorded hours of operation, the permittee shall calculate the total throughput of waste incinerated to show compliance with Specific Condition #8. The permittee may track actual waste incinerated (tons) as an alternative. [8 CAR § 41-605 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
10. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition #8 and #9. The permittee shall update these records by the fifteenth day of the month following the month to which the records pertain. The twelve month rolling totals and each individual month's data shall be maintained on-site, made available to Division of Environmental Quality personnel upon request, and submitted in accordance with General Provision #7. [8 CAR § 41-605 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

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11. The facility may only use engines classified as nonroad engines that are exempt from stationary source regulation under the Clean Air Act definition of stationary source. These engines cannot stay in the same location for more than 12 months or will lose the exemption.
12. For a facility currently covered under the General Permit, the permittee must submit an updated Notice of Intent before the startup of any new or replacement unit. Records for the date of startup must be updated at the facility within twenty-four (24) hours of operation. The Division of Environmental Quality will send the permittee an updated Confirmation Letter which is to be kept at the facility at all times. The permittee may begin construction and/or operation upon submittal of the updated Notice of Intent for such startup of a new or replacement unit or for any modifications or amendments to the NOI. [8 CAR § 41-605 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
13. The permittee shall notify the Division of Environmental Quality, in writing, 30 days prior to the commencement of operation at any new location. This notification must include the new location and if the new location is the same as another air permit holder. Upon receipt of such notification, the Division of Environmental Quality may authorize the operation as proposed by the permit, or when the facility is proposed to be operating in areas of high population density or in areas where the National Ambient Air Quality Standards are threatened, the Division of Environmental Quality may require more stringent controls. The permittee's authorization to operate at its current location shall expire forty-five (45) days after notification to the Division of Environmental Quality of an intended move. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
14. A facility applying for initial coverage under the General Permit must obtain a Confirmation Letter before beginning construction and operation of new sources. In the event a Confirmation Letter is not received by the applicant within thirty (30) calendar days from the submittal of the complete NOI to the Division of Environmental Quality, the applicant may construct and operate the facility at its own risk. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
15. You are subject to the following regulation based on the air curtain incinerator unit capacity and waste. By applying for this general permit the facility is obligated to comply with one of these regulations, regardless of construction, reconstruction for modification dates. You are not eligible for this general permit if your unit does not fall into one of these categories:

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EPA Waste Category	Unit Capacity	Regulation Requirement
Municipal Waste – yard waste collected from residences or other businesses	At least 35 tons per day and no more than 250 tons per day	40 C.F.R. § 60 Subpart AAAA
Municipal Waste – clean wood, wood waste, yard waste, or a mixture of those collected from residences or other businesses	Less than 35 tons per day	40 C.F.R. § 60 Subpart EEEE
Commercial and Industrial Waste – clean wood, wood waste, or a mix of clean wood, wood waste, or yard waste from commercial or industrial facilities/operations	Any capacity	40 C.F.R. § 60 Subpart CCCC
Institutional Waste – clean wood, wood waste, yard waste, or a mixture of those from institutions	Any capacity	40 C.F.R. § 60 Subpart EEEE

40 C.F.R. Part 60 Subpart AAAA

16. The permittee is subject to 40 C.F.R. Part 60 Subpart AAAA if the facility's air curtains combust municipal solid waste received from household, commercial/retail, or institutional sources. The permittee may only burn 100 percent yard waste in air curtain incinerators subject to this subpart. Yard waste is 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. Yard waste does not include construction, renovation, or demolition wastes and clean wood. [8 CAR § 41-401, 40 C.F.R. §§ 60.1015(a), 60.1020(k) and 60.1440]
17. Individual air curtain incinerators subject to this subpart have the capacity to combust at least 35 tons per day of municipal solid waste and can combust no more than 250 tons per day of municipal solid waste. Individual air curtain incinerators which have the capacity to combust less than 35 tons per day of municipal solid waste are instead subject to 40 C.F.R. § 60 Subpart EEEE. [8 CAR § 41-401 and 40 C.F.R. § 60.1445(a)(1)]
18. The air curtain incinerator must, within 60 days after it reaches the maximum load level at which it will operate, but no later than 180 days after its initial startup, meet the following two limits:
 1. The opacity limit of 10 percent (6-minute average),
 2. The opacity limit is 35 percent (6-minute average) during the startup period that is within the first 30 minutes of operation.[8 CAR § 41-401 and 40 C.F.R. § 60.1445(a)]
19. Except during malfunctions, the requirements of this subpart apply at all times. Each malfunction may not exceed 3 hours. [8 CAR § 41-401 and 40 C.F.R. § 60.1445(b)]
20. The permittee must conduct an initial test for opacity as specified in § 60.8. After the initial test for opacity, the permittee must conduct annual tests no more than 13 calendar months following the date of the previous test. The permittee must use EPA Reference Method 9 in Appendix A to Part 60 to determine compliance with the opacity limit. [8 CAR § 41-401 and 40 C.F.R. § 60.1450]
21. The permittee must provide a notice of construction that includes four items: The intent to construct the air curtain incinerator, the planned initial startup date, the types of fuels to be combusted in the air curtain incinerator, and the capacity of the incinerator, including supporting capacity calculations, as specified in §§ 60.1460(d) and (e). [8 CAR § 41-401 and 40 C.F.R. § 60.1455(a)]
22. The permittee must keep records of all opacity tests onsite in either paper copy or electronic format. The permittee must keep all records for each incinerator for at least 5 years and make all records available for submittal to the Division of Environmental Quality or for onsite review by an inspector. [8 CAR § 41-401 and 40 C.F.R. §§ 60.1455(b), (c), and (d)]

23. The permittee must submit the results (each 6-minute average) of the opacity tests by February 1 of the year following the year of the opacity emission test. The permittee must submit reports as a paper copy on or before the applicable submittal date and keep a copy of all reports onsite for a period of 5 years. [8 CAR § 41-401 and 40 C.F.R. §§ 60.1455(e), (f), and (h)]

40 C.F.R. Part 60 Subpart CCCC

24. The permittee is subject to 40 C.F.R. Part 60 Subpart CCCC if the facility's air curtains are commercial or industrial solid waste incineration (CISWI) units. A 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. [8 CAR § 41-401 and 40 C.F.R. § 60.2015 (a)]
25. The permittee may only burn either 100 percent wood waste, 100 percent clean lumber, or 100 percent mixture of only wood waste, clean lumber, and/or yard waste. Clean lumber means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. 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 land or (2) construction, renovation, or demolition wastes or clean lumber. 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. Yard waste is 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. Yard waste does not include construction, renovation, or demolition wastes and clean wood. [8 CAR § 41-401 and 40 C.F.R. § 60.2245 (b)]
26. Within 60 days after the air curtain incinerator reaches the charge rate at which it will operate, but no later than 180 days after its initial startup, the permittee must meet the two limitations as follows:
1. The permittee must 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)
 2. The permittee must 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.
- [8 CAR § 41-401 and 40 C.F.R. § 60.2250]
27. The permittee must conduct an initial test for opacity as specified in § 60.8. After the initial test for opacity, the permittee must conduct annual tests no more than 12 calendar months following the date of the previous test. The permittee must use Method 9 of

Appendix A to Part 60 to determine compliance with the opacity limitation. [8 CAR § 41-401 and 40 C.F.R. § 60.2255]

28. Prior to commencing construction on the air curtain incinerator, the permittee must submit a notification of intent to construct the air curtain incinerators, the planned initial startup date, and the types of materials that are to be burned in the air curtain incinerator. [8 CAR § 41-401 and 40 C.F.R. § 60.2260 (a)]
29. The permittee must keep records of results of all initial and annual opacity tests onsite in either paper copy or electronic format for at least five years. The permittee must make all records available for submittal to the Division of Environmental Quality or for an inspector's onsite review. [8 CAR § 41-401 and 40 C.F.R. §§ 60.2260 (b) and (c)]
30. The permittee 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. The permittee must submit annual opacity test results within 12 months following the previous report. The permittee must submit initial and annual opacity test reports as electronic or paper copy on or before the applicable submittal date and keep a copy of the initial and annual reports onsite for a period of 5 years. [8 CAR § 41-401 and 40 C.F.R. §§ 60.2260 (d), (e), and (f)]

40 C.F.R. Part 60 Subpart EEEE

31. The permittee is subject to 40 C.F.R. Part 60 Subpart EEEE if the facility's air curtains are very small municipal waste combustion units (less than 35 tons per day capacity) and institutional waste incineration units [8 CAR § 41-401 and 40 C.F.R. §§ 60.2886 (a) and 60.2888]
32. The permittee may only burn either 100 percent wood waste, 100 percent clean lumber, 100 percent yard waste, or 100 percent mixture of only wood waste, clean lumber, and/or yard waste. Clean lumber means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. 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 land or (2) construction, renovation, or demolition wastes or clean lumber. 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. Yard waste is 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. Yard waste does not include construction, renovation, or demolition wastes and clean wood. [8 CAR § 41-401 and 40 C.F.R. § 60.2970 (b)]

33. 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, the permittee must meet the following two limitations:
 1. The opacity limitation is 10 percent (6-minute average) in normal operation.
 2. The opacity limitation is 35 percent (6-minute average) during the startup period that is within the first 30 minutes of operation.[8 CAR § 41-401 and 40 C.F.R. § 60.2971]
34. The permittee must conduct an initial test for opacity as specified in §60.8. After the initial test for opacity, the permittee must conduct annual tests no more than 12 months following the date of the previous test. If the air curtain incinerator has been out of operation for more than 12 months following the date of the previous test, the permittee must conduct a test for opacity upon startup of the unit. The permittee must use Method 9 of Appendix A of Part 60 to determine compliance with the opacity limitation. [8 CAR § 41-401 and 40 C.F.R. § 60.2972]
35. Prior to commencing construction on the air curtain incinerator, the permittee must submit a notification of intent to construct the air curtain incinerator, the planned initial startup date, and the types of materials that are planned to be burned in the air curtain incinerator. [8 CAR § 41-401 and 40 C.F.R. § 60.2973(a)]
36. The permittee must keep records of results of all initial and annual opacity tests in either paper copy or computer-readable format that can be printed upon request for at least 5 years. The permittee must keep each record on site for at least 2 years. The permittee may keep the records off site for the remaining 3 years. The permittee must make all records available for submittal to the Division of Environmental Quality or for an inspector's review. [8 CAR § 41-401 and 40 C.F.R. §§ 60.2973 (b) and (c)]
37. The permittee 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. The permittee must submit the initial and annual opacity test reports as electronic or paper copy on or before the applicable submittal date. The permittee must keep a copy of the initial and annual reports on site for a period of 5 years. The permittee must keep each report on site for at least 2 years and may keep the reports off site for the remaining 3 years. [8 CAR § 41-401 and 40 C.F.R. §§ 60.2973 (d), (e), and (f)]

SECTION IV: COMPLIANCE PLAN AND SCHEDULE

The permittee will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future rules and regulations that may apply and determine their applicability with any necessary action taken on a timely basis.

SECTION V: PLANTWIDE CONDITIONS

1. The permittee shall notify the Director in writing within thirty (30) days after commencing construction, completing construction, first placing the equipment and/or facility in operation, and reaching the equipment and/or facility target production rate. [8 CAR § 41-604, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
2. If the permittee fails to start construction within eighteen months or suspends construction for eighteen months or more, the Director may cancel all or part of this permit. [8 CAR § 41-310(b) and 40 C.F.R. § 52 Subpart E]
3. The permittee must test any equipment scheduled for testing, unless otherwise stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) new equipment or newly modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) operating equipment according to the time frames set forth by the Division of Environmental Quality or within 180 days of permit issuance if no date is specified. The permittee must notify the Division of Environmental Quality of the scheduled date of compliance testing at least fifteen (15) business days in advance of such test. The permittee shall submit the compliance test results to the Division of Environmental Quality within sixty (60) calendar days after completing the testing. [8 CAR § 41-602 and/or 8 CAR § 40-902 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
4. The permittee must provide:
 - a. Sampling ports adequate for applicable test methods;
 - b. Safe sampling platforms;
 - c. Safe access to sampling platforms; and
 - d. Utilities for sampling and testing equipment.

[8 CAR § 41-602 and/or 8 CAR § 40-902 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee shall maintain the equipment in good condition at all times. [8 CAR § 41-203 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
6. This permit subsumes and incorporates all previously issued air permits for this facility. [8 CAR pt. 42 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SECTION VI: INSIGNIFICANT ACTIVITIES

The permittee must submit a list of activities which are considered insignificant in 8 CAR pt. 40 and pt. 41 (Appendix A). The Division of Environmental Quality will document these activities in the Confirmation Letter if the insignificant activities are categorized in Group A.

SECTION VII: GENERAL PROVISIONS

1. Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission 8 CAR pt. 40 or the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 et seq.) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission 8 CAR pt. 40 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 et seq.). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission 8 CAR pt. 40 or the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 et seq.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute. [40 C.F.R. § 70.6(b)(2)]
2. This permit shall be valid for a period of five (5) years beginning on the date this permit becomes effective and ending five (5) years later. [40 C.F.R. § 70.6(a)(2) and 8 CAR § 42-601(2)]
3. The permittee must submit a complete NOI for permit renewal before permit expiration. Permit expiration terminates the permittee's right to operate unless the permittee submitted a complete renewal NOI before permit expiration. The Division of Environmental Quality will not necessarily notify the permittee when the permit renewal NOI is due. If the general permit expires before a final decision is made by the Division of Environmental Quality to renew or not renew the general permit, the terms and conditions of the general permit shall remain in effect, and all persons who obtained coverage under the general permit before its expiration shall retain coverage under the general permit until there has been a final permit decision on the general permit. In the event the Division of Environmental Quality makes a decision to not renew the general permit, existing coverage under the general permit shall continue under the terms of the expired permit until a final decision is reached for an individual permit. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
4. Where an applicable requirement of the Clean Air Act, as amended, 42 U.S.C. 7401, et seq. (Act) is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, the permit incorporates both provisions into the permit, and the Director or the Administrator can enforce both provisions. [40 C.F.R. § 70.6(a)(1)(ii) and 8 CAR § 42-601(1)(C)]
5. The permittee must maintain the following records of monitoring information as required by this permit.
 - a. The date, place as defined in this permit, and time of sampling or measurements;
 - b. The date(s) analyses performed;
 - c. The company or entity performing the analyses;
 - d. The analytical techniques or methods used;

- e. The results of such analyses; and
- f. The operating conditions existing at the time of sampling or measurement.

[40 C.F.R. § 70.6(a)(3)(ii)(A) and 8 CAR § 42-601(3)(C)]

6. The permittee must retain the records of all required monitoring data and support information for at least five (5) years from the date of the monitoring sample, measurement, report, or NOI. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [40 C.F.R. § 70.6(a)(3)(ii)(B) and 8 CAR § 42-601(3)(C)(ii)]
7. The permittee must submit reports of all required monitoring every six (6) months. If the permit establishes no other reporting period, the reporting period shall end on the last day of the month six months after the issuance of the initial Title V permit and every six months thereafter. The report is due on the first day of the second month after the end of the reporting period. The first report due after issuance of the initial Title V permit shall contain six months of data and each report thereafter shall contain 12 months of data. The report shall contain data for all monitoring requirements in effect during the reporting period. If a monitoring requirement is not in effect for the entire reporting period, only those months of data in which the monitoring requirement was in effect are required to be reported. The report must clearly identify all instances of deviations from permit requirements. A responsible official as defined in 8 CAR § 42-104 must certify all required reports. The permittee will send the reports electronically using <https://eportal.adeq.state.ar.us> (or any successor system) or mail them to the address below:

Division of Environmental Quality
Office of Air Quality
ATTN: Compliance Inspector Supervisor
5301 Northshore Drive
North Little Rock, AR 72118-5317

[40 C.F.R. § 70.6(a)(3)(iii)(A) and 8 CAR § 42-601(3)(D)(i)]

8. The permittee shall report to the Division of Environmental Quality all deviations from permit requirements, including those attributable to upset conditions as defined in the permit.
 - a. For all upset conditions (as defined in 8 CAR § 41-501), the permittee will make an initial report to the Division of Environmental Quality by the next business day after the discovery of the occurrence. The initial report may be made by telephone and shall include:
 - i. The facility name and location;
 - ii. The process unit or emission source deviating from the permit limit;

- iii. The permit limit, including the identification of pollutants, from which deviation occurs;
- iv. The date and time the deviation started;
- v. The duration of the deviation;
- vi. The emissions during the deviation;
- vii. The probable cause of such deviations;
- viii. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future; and
- ix. The name of the person submitting the report.

The permittee shall make a full report in writing to the Division of Environmental Quality within five (5) business days of discovery of the occurrence. The report must include, in addition to the information required by the initial report, a schedule of actions taken or planned to eliminate future occurrences and/or to minimize the amount the permit's limits were exceeded and to reduce the length of time the limits were exceeded. The permittee may submit a full report in writing (by facsimile, overnight courier, or other means) by the next business day after discovery of the occurrence, and the report will serve as both the initial report and full report.

- b. For all deviations, the permittee shall report such events in semi-annual reporting and annual certifications required in this permit. This includes all upset conditions reported in 8a above. The semi-annual report must include all the information as required by the initial and full reports required in 8a.

[8 CAR § 41-501, 8 CAR § 41-502, 8 CAR § 42-104(3)(D)(ii), and 40 C.F.R. § 70.6(a)(3)(iii)(B)]

9. If any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity will not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Rule are declared to be separable and severable. [40 C.F.R. § 70.6(a)(5), 8 CAR § 42-601(5), and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
10. The permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in 8 CAR pt. 42 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. § 7401, et seq. and is grounds for enforcement action; for permit termination, revocation and reissuance, for permit modification; or for denial of a permit renewal NOI. [40 C.F.R. § 70.6(a)(6)(i) and 8 CAR § 42-601(6)(A)]
11. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit. [40 C.F.R. § 70.6(a)(6)(ii) and 8 CAR § 42-601(6)(B)]

12. The Division of Environmental Quality may modify, revoke, reopen and reissue the permit or terminate the permit for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [40 C.F.R. § 70.6(a)(6)(iii) and 8 CAR § 42-601(6)(C)]
13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 C.F.R. § 70.6(a)(6)(iv) and 8 CAR § 42-601(6)(D)]
14. The permittee must furnish to the Director, within the time specified by the Director, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee must also furnish to the Director copies of records required by the permit. For information the permittee claims confidentiality, the Division of Environmental Quality may require the permittee to furnish such records directly to the Director along with a claim of confidentiality. [40 C.F.R. § 70.6(a)(6)(v) and 8 CAR § 42-601(6)(E)]
15. The permittee must pay all permit fees in accordance with the procedures established in 8 CAR pt. 12. [40 C.F.R. § 70.6(a)(7) and 8 CAR § 42-601(7)]
16. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes provided for elsewhere in this permit. [40 C.F.R. § 70.6(a)(8) and 8 CAR § 42-601(8)]
17. If the permit allows different operating scenarios, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the operational scenario. [40 C.F.R. § 70.6(a)(9)(i) and 8 CAR § 42-601(9)(B)(i)]
18. The Administrator and citizens may enforce under the Act all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, unless the Division of Environmental Quality specifically designates terms and conditions of the permit as being federally unenforceable under the Act or under any of its applicable requirements. [40 C.F.R. § 70.6(b) and 8 CAR § 42-602(a) and (b)]
19. Any document (including reports) required by this permit pursuant to 40 C.F.R. § 70 must contain a certification by a responsible official as defined in 8 CAR § 42-104. [40 C.F.R. § 70.6(c)(1) and 8 CAR § 42-603(1)]
20. The permittee must allow an authorized representative of the Division of Environmental Quality, upon presentation of credentials, to perform the following: [40 C.F.R. § 70.6(c)(2) and 8 CAR § 42-603(2)]

- a. Enter upon the permittee's premises where the permitted source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records required under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d. As authorized by the Act, sample or monitor at reasonable times substances or parameters for assuring compliance with this permit or applicable requirements.
21. The permittee shall submit a compliance certification with the terms and conditions contained in the permit, including emission limitations, standards, or work practices. The permittee must submit the compliance certification annually. If the permit establishes no other reporting period, the reporting period shall end on the last day of the anniversary month of the initial Title V permit. The report is due on the first day of the second month after the end of the reporting period. The permittee must also submit the compliance certification to the Administrator as well as to the Division of Environmental Quality. All compliance certifications required by this permit must include the following: [40 C.F.R. § 70.6(c)(5) and 8 CAR § 42-603(5)(B)(iii)]
- a. The identification of each term or condition of the permit that is the basis of the certification;
 - b. The compliance status;
 - c. Whether compliance was continuous or intermittent;
 - d. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit; and
 - e. Such other facts as the Division of Environmental Quality may require elsewhere in this permit or by § 114(a)(3) and § 504(b) of the Act.
22. Nothing in this permit will alter or affect the following: [8 CAR § 42-604(c)]
- a. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
 - b. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
 - c. The applicable requirements of the acid rain program, consistent with § 408(a) of the Act; or
 - d. The ability of EPA to obtain information from a source pursuant to § 114 of the Act.
23. This permit authorizes only those pollutant emitting activities addressed in this permit. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

24. The permittee may request in writing and at least 15 days in advance of the deadline, an extension to any testing, compliance or other dates in this permit. No such extensions are authorized until the permittee receives written Division of Environmental Quality approval. The Division of Environmental Quality may grant such a request, at its discretion in the following circumstances:
- a. Such an extension does not violate a federal requirement;
 - b. The permittee demonstrates the need for the extension; and
 - c. The permittee documents that all reasonable measures have been taken to meet the current deadline and documents reasons it cannot be met.

[8 CAR § 40-214(a), 8 CAR § 41-316(a), 8 CAR § 42-913(a), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

25. The permittee may request in writing and at least 30 days in advance, temporary emissions and/or testing that would otherwise exceed an emission rate, throughput requirement, or other limit in this permit. No such activities are authorized until the permittee receives written Division of Environmental Quality approval. Any such emissions shall be included in the facility's total emissions and reported as such. The Division of Environmental Quality may grant such a request, at its discretion under the following conditions:
- a. Such a request does not violate a federal requirement;
 - b. Such a request is temporary in nature;
 - c. Such a request will not result in a condition of air pollution;
 - d. The request contains such information necessary for the Division of Environmental Quality to evaluate the request, including but not limited to, quantification of such emissions and the date/time such emission will occur;
 - e. Such a request will result in increased emissions less than five tons of any individual criteria pollutant, one ton of any single HAP and 2.5 tons of total HAPs; and
 - f. The permittee maintains records of the dates and results of such temporary emissions/testing.

[8 CAR § 40-214(b), 8 CAR § 41-316(b), 8 CAR § 42-913(b), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

26. The permittee may request in writing and at least 30 days in advance, an alternative to the specified monitoring in this permit. No such alternatives are authorized until the permittee receives written Division of Environmental Quality approval. The Division of Environmental Quality may grant such a request, at its discretion under the following conditions:
- a. The request does not violate a federal requirement;
 - b. The request provides an equivalent or greater degree of actual monitoring to the current requirements; and

- c. Any such request, if approved, is incorporated in the next permit modification NOI by the permittee.

[8 CAR § 40-214(c), 8 CAR § 41-316(c), 8 CAR § 42-913(c), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

27. Any credible evidence based on sampling, monitoring, and reporting may be used to determine violations of applicable emission limitations. [8 CAR § 40-901, 8 CAR § 41-601, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]
28. Notices of Intent shall be submitted by electronic application using DEQ's ePortal System (or any successor system). Applicants may apply for a waiver from electronic submittal if unable to use the electronic submittal system. If DEQ grants a waiver approval to use a paper NOI, the applicant must use the approved paper form developed by DEQ. [8 CAR § 40-204(a) and/or 8 CAR § 41-304(a) and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Appendix A
40 C.F.R. Part 60 Subpart AAAA

Subpart AAAA—Standards of Performance for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001

Source: [65 FR 76355](#), Dec. 6, 2000, unless otherwise noted.

Introduction

§ 60.1000 What does this subpart do?

This subpart establishes new source performance standards for new small municipal waste combustion units.

§ 60.1005 When does this subpart become effective?

This subpart takes effect June 6, 2001. Some of the requirements in this subpart apply to municipal waste combustion unit planning and must be completed before construction is commenced on the municipal waste combustion unit. In particular, the preconstruction requirements in [§§ 60.1050](#) through [60.1150](#) must be completed prior to commencing construction. Other requirements (such as the emission limits) apply when the municipal waste combustion unit begins operation.

Applicability

§ 60.1010 Does this subpart apply to my municipal waste combustion unit?

Yes, if your municipal waste combustion unit meets two criteria:

- (a) Your municipal waste combustion unit is a new municipal waste combustion unit.
- (b) Your municipal waste combustion unit has the capacity to combust at least 35 tons per day but no more than 250 tons per day of municipal solid waste or refuse-derived fuel.

§ 60.1015 What is a new municipal waste combustion unit?

- (a) A new municipal waste combustion unit is a municipal waste combustion unit that meets either of two criteria:
 - (1) Commenced construction after August 30, 1999.

(2) Commenced reconstruction or modification after June 6, 2001.

(b) This subpart does not apply to your municipal waste combustion unit if you make physical or operational changes to an existing municipal waste combustion unit primarily to comply with the emission guidelines in [subpart BBBB of this part](#). Such changes do not qualify as reconstruction or modification under this subpart.

§ 60.1020 Does this subpart allow any exemptions?

(a) ***Small municipal waste combustion units that combust less than 11 tons per day.*** You are exempt from this subpart if you meet four requirements:

(1) Your municipal waste combustion unit is subject to a federally enforceable permit limiting the amount of municipal solid waste combusted to less than 11 tons per day.

(2) You notify the Administrator that the unit qualifies for the exemption.

(3) You provide the Administrator with a copy of the federally enforceable permit.

(4) You keep daily records of the amount of municipal solid waste combusted.

(b) ***Small power production facilities.*** You are exempt from this subpart if you meet four requirements:

(1) Your 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) Your unit combusts homogeneous waste (excluding refuse-derived fuel) to produce electricity.

(3) You notify the Administrator that the unit qualifies for the exemption.

(4) You provide the Administrator with documentation that the unit qualifies for the exemption.

(c) ***Cogeneration facilities.*** You are exempt from this subpart if you meet four requirements:

(1) Your unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act ([16 U.S.C. 796\(18\)\(B\)](#)).

(2) Your unit combusts homogeneous waste (excluding 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 qualifies for the exemption.

(4) You provide the Administrator with documentation that the unit qualifies for the exemption.

(d) ***Municipal waste combustion units that combust only tires.*** You are exempt from this subpart if you meet three requirements:

(1) Your municipal waste combustion unit combusts a single-item waste stream of tires and no other municipal waste (the unit can co-fire coal, fuel oil, natural gas, or other nonmunicipal solid waste).

(2) You notify the Administrator that the unit qualifies for the exemption.

(3) You provide the Administrator with documentation that the unit qualifies for the exemption.

(e) ***Hazardous waste combustion units.*** You are exempt from this subpart if you get a permit for your unit under section 3005 of the Solid Waste Disposal Act.

(f) ***Materials recovery units.*** You are exempt from this subpart if your unit combusts waste mainly to recover metals. Primary and secondary smelters qualify for the exemption.

(g) ***Co-fired combustors.*** You are exempt from this subpart if you meet four requirements:

(1) Your unit has a federally enforceable permit limiting the combustion of municipal solid waste to 30 percent of the total fuel input by weight.

(2) You notify the Administrator that the unit qualifies for the exemption.

(3) You provide the Administrator with a copy of the federally enforceable permit.

(4) You record the weights, each quarter, of municipal solid waste and of all other fuels combusted.

(h) ***Plastics/rubber recycling units.*** You are exempt from this subpart if you meet four requirements:

(1) Your pyrolysis/combustion unit is an integrated part of a plastics/rubber recycling unit as defined under “Definitions” ([§ 60.1465](#)).

(2) You record the weights, each quarter, of plastics, rubber, and rubber tires processed.

(3) You record the weights, each quarter, of feed stocks produced and marketed from chemical plants and petroleum refineries.

(4) You keep the name and address of the purchaser of those feed stocks.

(i) **Units that combust fuels made from products of plastics/rubber recycling plants.** You are exempt from this subpart if you meet two requirements:

(1) Your unit combusts gasoline, diesel fuel, jet fuel, fuel oils, residual oil, refinery gas, petroleum coke, liquified petroleum gas, propane, or butane produced by chemical plants or petroleum refineries that use feedstocks produced by plastics/rubber recycling units.

(2) Your unit does not combust any other municipal solid waste.

(j) **Cement kilns.** You are exempt from this subpart if your cement kiln combusts municipal solid waste.

(k) **Air curtain incinerators.** If your air curtain incinerator (see [§ 60.1465](#) for definition) combusts 100 percent yard waste, you must meet only the requirements under “Air Curtain Incinerators That Burn 100 Percent Yard Waste” ([§§ 60.1435](#) through [60.1455](#)).

§ 60.1025 Do subpart E new source performance standards also apply to my municipal waste combustion unit?

If this subpart AAAA applies to your municipal waste combustion unit, then [subpart E of this part](#) does not apply to your municipal waste combustion unit.

§ 60.1030 Can the Administrator delegate authority to enforce these Federal new source performance standards to a State agency?

Yes, the Administrator can delegate all authorities in all sections of this subpart to the State for direct State enforcement.

§ 60.1035 How are these new source performance standards structured?

These new source performance standards contain five major components:

(a) Preconstruction requirements.

(1) Materials separation plan.

(2) Siting analysis.

(b) Good combustion practices.

(1) Operator training.

- (2) Operator certification.
- (3) Operating requirements.
- (c) Emission limits.
- (d) Monitoring and stack testing.
- (e) Recordkeeping and reporting.

§ 60.1040 Do all five components of these new source performance standards apply at the same time?

No, you must meet the preconstruction requirements before you commence construction of the municipal waste combustion unit. After the municipal waste combustion unit begins operation, you must meet all of the good combustion practices, emission limits, monitoring, stack testing, and most recordkeeping and reporting requirements.

§ 60.1045 Are there different subcategories of small municipal waste combustion units within this subpart?

(a) Yes, this subpart subcategorizes small municipal waste combustion units into two groups based on the aggregate capacity of the municipal waste combustion plant as follows:

(1) ***Class I Units.*** Class I units are small municipal waste combustion units that are located at municipal waste combustion plants with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste. (See the definition of “municipal waste combustion plant capacity” in [§ 60.1465](#) for specification of which units at a plant are included in the aggregate capacity calculation.)

(2) ***Class II Units.*** Class II units are small municipal waste combustion units that are located at municipal waste combustion plants with an aggregate plant combustion capacity less than or equal to 250 tons per day of municipal solid waste. (See the definition of “municipal waste combustion plant capacity” in [§ 60.1465](#) for specification of which units at a plant are included in the aggregate capacity calculation.)

(b) The requirements for Class I and Class II units are identical except for two items:

(1) Class I units have a nitrogen oxides emission limit. Class II units do not have a nitrogen oxides emission limit (see table 1 of this subpart). Additionally, Class I units have continuous emission monitoring, recordkeeping, and reporting requirements for nitrogen oxides.

(2) Class II units are eligible for the reduced testing option provided in [§ 60.1305](#).

Preconstruction Requirements: Materials Separation Plan

§ 60.1050 Who must submit a materials separation plan?

- (a) You must prepare a materials separation plan for your municipal waste combustion unit if you commence construction of a new small municipal waste combustion unit after December 6, 2000.
- (b) If you commence construction of your municipal waste combustion unit after August 30, 1999 but before December 6, 2000, you are not required to prepare the materials separation plan specified in this subpart.
- (c) You must prepare a materials separation plan if you are required to submit an initial application for a construction permit, under [40 CFR part 51, subpart I](#), or part 52, as applicable, for the reconstruction or modification of your municipal waste combustion unit.

§ 60.1055 What is a materials separation plan?

The plan identifies a goal and an approach for separating certain components of municipal solid waste for a given service area prior to waste combustion and making them available for recycling.

§ 60.1060 What steps must I complete for my materials separation plan?

- (a) For your materials separation plan, you must complete nine steps:
 - (1) Prepare a draft materials separation plan.
 - (2) Make your draft plan available to the public.
 - (3) Hold a public meeting on your draft plan.
 - (4) Prepare responses to public comments received during the public comment period on your draft plan.
 - (5) Prepare a revised materials separation plan.
 - (6) Discuss the revised plan at the public meeting for review of the siting analysis.
 - (7) Prepare responses to public comments received on your revised plan.
 - (8) Prepare a final materials separation plan.

(9) Submit the final materials separation plan.

(b) You may use analyses conducted under the requirements of [40 CFR part 51, subpart I](#), or part 52, to comply with some of the materials separation requirements of this subpart.

§ 60.1065 What must I include in my draft materials separation plan?

(a) You must prepare and submit a draft materials separation plan for your municipal waste combustion unit and its service area.

(b) Your draft materials separation plan must identify a goal and an approach for separating certain components of municipal solid waste for a given service area prior to waste combustion and making them available for recycling. A materials separation plan may include such elements as dropoff facilities, buy-back or deposit-return incentives, programs for curbside pickup, and centralized systems for mechanical separation.

(c) Your materials separation plan may include different goals or approaches for different subareas in the service area.

(d) Your materials separation plan may exclude materials separation activities for certain subareas or, if warranted, the entire service area.

§ 60.1070 How do I make my draft materials separation plan available to the public?

(a) Distribute your draft materials separation plan to the main public libraries in the area where you will construct the municipal waste combustion unit.

(b) Publish a notice of a public meeting in the main newspapers that serve two areas:

(1) The area where you will construct the municipal waste combustion unit.

(2) The areas where the waste that your municipal waste combustion unit combusts will be collected.

(c) Include six items in your notice of the public meeting:

(1) The date of the public meeting.

(2) The time of the public meeting.

(3) The location of the public meeting.

(4) The location of the public libraries where the public can find your materials separation plan. Include the normal business hours of each library.

(5) An agenda of the topics that will be discussed at the public meeting.

(6) The beginning and ending dates of the public comment period on your draft materials separation plan.

§ 60.1075 When must I accept comments on the materials separation plan?

(a) You must accept verbal comments at the public meeting.

(b) You must accept written comments anytime during the period that begins on the date the document is distributed to the main public libraries and ends 30 days after the date of the public meeting.

§ 60.1080 Where and when must I hold a public meeting on my draft materials separation plan?

(a) You must hold a public meeting and accept comments on your draft materials separation plan.

(b) You must hold the public meeting in the county where you will construct the municipal waste combustion unit.

(c) You must schedule the public meeting to occur at least 30 days after you make your draft materials separation plan available to the public.

(d) You may combine the public meeting with any other public meeting required as part of any other Federal, State, or local permit review. However, you may not combine it with the public meeting required for the siting analysis under “Preconstruction Requirements: Siting Analysis” ([§ 60.1140](#)).

(e) You are encouraged to address eight topics at the public meeting for your draft materials separation plan:

(1) Expected size of the service area for your municipal waste combustion unit.

(2) Amount of waste you will collect in the service area.

(3) Types and estimated amounts of materials proposed for separation.

(4) Methods proposed for materials separation.

- (5) Amount of residual waste for disposal.
- (6) Alternate disposal methods for handling the residual waste.
- (7) Where your responses to public comments on the draft materials separation plan will be available for inspection.
- (8) Where your revised materials separation plan will be available for inspection.
- (f) You must prepare a transcript of the public meeting on your draft materials separation plan.

§ 60.1085 What must I do with any public comments I receive during the public comment period on my draft materials separation plan?

You must do three steps:

- (a) Prepare written responses to any public comments you received during the public comment period. Summarize the responses to public comments in a document that is separate from your revised materials separation plan.
- (b) Make the comment response document available to the public in the service area where you will construct your municipal waste combustion unit. You must distribute the document at least to the main public libraries used to announce the public meeting.
- (c) Prepare a revised materials separation plan for the municipal waste combustion unit that includes, as appropriate, changes made in response to any public comments you received during the public comment period.

§ 60.1090 What must I do with my revised materials separation plan?

You must do two tasks:

- (a) As specified under “Reporting” ([§ 60.1375](#)), submit five items to the Administrator by the date you submit the application for a construction permit under [40 CFR part 51, subpart I](#), or part 52. (If you are not required to submit an application for a construction permit under [40 CFR part 51, subpart I](#), or part 52, submit five items to the Administrator by the date of your notice of construction under [§ 60.1380](#)):
 - (1) Your draft materials separation plan.
 - (2) Your revised materials separation plan.

- (3) Your notice of the public meeting for your draft materials separation plan.
 - (4) A transcript of the public meeting on your draft materials separation plan.
 - (5) The document that summarizes your responses to the public comments you received during the public comment period on your draft materials separation plan.
- (b) Make your revised materials separation plan available to the public as part of the siting analysis procedures under “Preconstruction Requirements: Siting Analysis” ([§ 60.1130](#)).

§ 60.1095 What must I include in the public meeting on my revised materials separation plan?

As part of the public meeting for review of the siting analysis, as specified under “Preconstruction Requirements: Siting Analysis” ([§ 60.1140](#)), you must discuss two areas:

- (a) Differences between your revised materials separation plan and your draft materials separation plan discussed at the first public meeting ([§ 60.1080](#)).
- (b) Questions about your revised materials separation plan.

§ 60.1100 What must I do with any public comments I receive on my revised materials separation plan?

- (a) Prepare written responses to any public comments and include them in the document that summarizes your responses to public comments on the siting analysis.
- (b) Prepare a final materials separation plan that includes, as appropriate, changes made in response to any public comments you received on your revised materials separation plan.

§ 60.1105 How do I submit my final materials separation plan?

As specified under “Reporting” ([§ 60.1380](#)), submit your final materials separation plan to the Administrator as part of the notice of construction for the municipal waste combustion unit.

Preconstruction Requirements: Siting Analysis

§ 60.1110 Who must submit a siting analysis?

- (a) You must prepare a siting analysis if you commence construction of a small municipal waste combustion unit after December 6, 2000.

(b) If you commence construction on your municipal waste combustion unit after August 30, 1999, but before December 6, 2000, you are not required to prepare the siting analysis specified in this subpart.

(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 part 52, as applicable, for the reconstruction or modification of your municipal waste combustion unit.

§ 60.1115 What is a siting analysis?

The siting analysis addresses how your municipal waste combustion unit affects ambient air quality, visibility, soils, vegetation, and other relevant factors. The analysis can be used to determine whether the benefits of your proposed facility significantly outweigh the environmental and social costs resulting from its location and construction. The analysis must also consider other major industrial facilities near the proposed site.

§ 60.1120 What steps must I complete for my siting analysis?

(a) For your siting analysis, you must complete five steps:

- (1) Prepare an analysis.
- (2) Make your analysis available to the public.
- (3) Hold a public meeting on your analysis.
- (4) Prepare responses to public comments received on your analysis.
- (5) Submit your analysis.

(b) You may use analyses conducted under the requirements of [40 CFR part 51, subpart I](#), or part 52, to comply with some of the siting analysis requirements of this subpart.

§ 60.1125 What must I include in my siting analysis?

(a) Include an analysis of how your municipal waste combustion unit affects four areas:

- (1) Ambient air quality.
- (2) Visibility.
- (3) Soils.
- (4) Vegetation.

(b) Include an analysis of alternatives for controlling air pollution that minimize potential risks to the public health and the environment.

§ 60.1130 How do I make my siting analysis available to the public?

(a) Distribute your siting analysis and revised materials separation plan to the main public libraries in the area where you will construct your municipal waste combustion unit.

(b) Publish a notice of a public meeting in the main newspapers that serve two areas:

(1) The area where you will construct your municipal waste combustion unit.

(2) The areas where the waste that your municipal waste combustion unit combusts will be collected.

(c) Include six items in your notice of the public meeting:

(1) The date of the public meeting.

(2) The time of the public meeting.

(3) The location of the public meeting.

(4) The location of the public libraries where the public can find your siting analysis and revised materials separation plan. Include the normal business hours of each library.

(5) An agenda of the topics that will be discussed at the public meeting.

(6) The beginning and ending dates of the public comment period on your siting analysis and revised materials separation plan.

§ 60.1135 When must I accept comments on the siting analysis and revised materials separation plan?

(a) You must accept verbal comments at the public meeting.

(b) You must accept written comments anytime during the period that begins on the date the document is distributed to the main public libraries and ends 30 days after the date of the public meeting.

§ 60.1140 Where and when must I hold a public meeting on the siting analysis?

- (a) You must hold a public meeting to discuss and accept comments on your siting analysis and your revised materials separation plan.
- (b) You must hold the public meeting in the county where you will construct your municipal waste combustion unit.
- (c) You must schedule the public meeting to occur at least 30 days after you make your siting analysis and revised materials separation plan available to the public.
- (d) You must prepare a transcript of the public meeting on your siting analysis.

§ 60.1145 What must I do with any public comments I receive during the public comment period on my siting analysis?

You must do three things:

- (a) Prepare written responses to any public comments on your siting analysis and the revised materials separation plan you received during the public comment period. Summarize the responses to public comments in a document that is separate from your materials separation plan and siting analysis.
- (b) Make the comment response document available to the public in the service area where you will construct your municipal waste combustion unit. You must distribute the document at least to the main public libraries used to announce the public meeting for the siting analysis.
- (c) Prepare a revised siting analysis for the municipal waste combustion unit that includes, as appropriate, changes made in response to any public comments you received during the public comment period.

§ 60.1150 How do I submit my siting analysis?

As specified under “Reporting” ([§ 60.1380](#)), submit four items as part of the notice of construction:

- (a) Your siting analysis.
- (b) Your notice of the public meeting on your siting analysis.
- (c) A transcript of the public meeting on your siting analysis.
- (d) The document that summarizes your responses to the public comments you received during the public comment period.

Good Combustion Practices: Operator Training

§ 60.1155 What types of training must I do?

There are two types of required training:

- (a) Training of operators of municipal waste combustion units using the U.S. Environmental Protection Agency (EPA) or a State-approved training course.
- (b) Training of plant personnel using a plant-specific training course.

§ 60.1160 Who must complete the operator training course? By when?

(a) Three types of employees must complete the EPA or State-approved operator training course:

- (1) Chief facility operators.
- (2) Shift supervisors.
- (3) Control room operators.

(b) Those employees must complete the operator training course by the later of three dates:

- (1) Six months after your municipal waste combustion unit initial startup.
- (2) December 6, 2001.
- (3) The date before an employee assumes responsibilities that affect operation of the municipal waste combustion unit.

§ 60.1165 Who must complete the plant-specific training course?

All employees with responsibilities that affect how a municipal waste combustion unit operates must complete the plant-specific training course. Include at least six types of employees:

- (a) Chief facility operators.
- (b) Shift supervisors.
- (c) Control room operators.

- (d) Ash handlers.
- (e) Maintenance personnel.
- (f) Crane or load handlers.

§ 60.1170 What plant-specific training must I provide?

For plant-specific training, you must do four things:

(a) For training at a particular plant, develop a specific operating manual for that plant by the later of two dates:

- (1) Six months after your municipal waste combustion unit initial startup.
- (2) December 6, 2001.

(b) Establish a program to review the plant-specific operating manual with people whose responsibilities affect the operation of your municipal waste combustion unit. Complete the initial review by the later of three dates:

- (1) Six months after your municipal waste combustion unit initial startup.
- (2) December 6, 2001.
- (3) The date before an employee assumes responsibilities that affect operation of the municipal waste combustion unit.

(c) Update your manual annually.

(d) Review your manual with staff annually.

§ 60.1175 What information must I include in the plant-specific operating manual?

You must include 11 items in the operating manual for your plant:

- (a) A summary of all applicable requirements in this subpart.
- (b) A description of the basic combustion principles that apply to municipal waste combustion units.
- (c) Procedures for receiving, handling, and feeding municipal solid waste.

(d) Procedures to be followed during periods of startup, shutdown, and malfunction of the municipal waste combustion unit.

(e) Procedures for maintaining a proper level of combustion air supply.

(f) Procedures for operating the municipal waste combustion unit in compliance with the requirements contained in this subpart.

(g) Procedures for responding to periodic upset or off-specification conditions.

(h) Procedures for minimizing carryover of particulate matter.

(i) Procedures for handling ash.

(j) Procedures for monitoring emissions from the municipal waste combustion unit.

(k) Procedures for recordkeeping and reporting.

§ 60.1180 Where must I keep the plant-specific operating manual?

You must keep your operating manual in an easily accessible location at your plant. It must be available for review or inspection by all employees who must review it and by the Administrator.

Good Combustion Practices: Operator Certification

§ 60.1185 What types of operator certification must the chief facility operator and shift supervisor obtain and by when must they obtain it?

(a) Each chief facility operator and shift supervisor must obtain and keep a current provisional operator certification from the American Society of Mechanical Engineers (QRO-1-1994) (incorporated by reference in [§ 60.17\(h\)\(1\)](#)) or a current provisional operator certification from your State certification program.

(b) Each chief facility operator and shift supervisor must obtain a provisional certification by the later of three dates:

(1) Six months after the municipal waste combustion unit initial startup.

(2) December 6, 2001.

(3) Six months after they transfer to the municipal waste combustion unit or 6 months after they are hired to work at the municipal waste combustion unit.

(c) Each chief facility operator and shift supervisor must take one of three actions:

(1) Obtain a full certification from the American Society of Mechanical Engineers or a State certification program in your State.

(2) Schedule a full certification exam with the American Society of Mechanical Engineers (QRO-1-1994) (incorporated by reference in [§ 60.17\(h\)\(1\)](#)).

(3) Schedule a full certification exam with your State certification program.

(d) The chief facility operator and shift supervisor must obtain the full certification or be scheduled to take the certification exam by the later of three dates:

(1) Six months after the municipal waste combustion unit initial startup.

(2) December 6, 2001.

(3) Six months after they transfer to the municipal waste combustion unit or 6 months after they are hired to work at the municipal waste combustion unit.

§ 60.1190 After the required date for operator certification, who may operate the municipal waste combustion unit?

After the required date for full or provisional certifications, you must not operate your municipal waste combustion unit unless one of four employees is on duty:

(a) A fully certified chief facility operator.

(b) A provisionally certified chief facility operator who is scheduled to take the full certification exam.

(c) A fully certified shift supervisor.

(d) A provisionally certified shift supervisor who is scheduled to take the full certification exam.

§ 60.1195 What if all the certified operators must be temporarily offsite?

If the certified chief facility operator and certified shift supervisor both are unavailable, a provisionally certified control room operator at the municipal waste combustion unit may fulfill the certified operator requirement. Depending on the length of time that a certified chief facility operator and certified shift supervisor are away, you must meet one of three criteria:

(a) When the certified chief facility operator and certified shift supervisor are both offsite for 12 hours or less, and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without notice to, or approval by, the Administrator.

(b) When the certified chief facility operator and certified shift supervisor are offsite for more than 12 hours, but for 2 weeks or less, and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without notice to, or approval by, the Administrator. However, you must record the period when the certified chief facility operator and certified shift supervisor are offsite and include that information in the annual report as specified under [§ 60.1410\(l\)](#).

(c) When the certified chief facility operator and certified shift supervisor are offsite for more than 2 weeks, and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without notice to, or approval by, the Administrator. However, you must take two actions:

(1) Notify the Administrator in writing. In the notice, state what caused the absence and what you are doing to ensure that a certified chief facility operator or certified shift supervisor is onsite.

(2) Submit a status report and corrective action summary to the Administrator every 4 weeks following the initial notification. If the Administrator notifies you that your status report or corrective action summary is disapproved, the municipal waste combustion unit may continue operation for 90 days, but then must cease operation. If corrective actions are taken in the 90-day period such that the Administrator withdraws the disapproval, municipal waste combustion unit operation may continue.

Good Combustion Practices: Operating Requirements

§ 60.1200 What are the operating practice requirements for my municipal waste combustion unit?

(a) You must not operate your municipal waste combustion unit at loads greater than 110 percent of the maximum demonstrated load of the municipal waste combustion unit (4-hour block average), as specified under “Definitions” ([§ 60.1465](#)).

(b) You must not operate your municipal waste combustion unit so that the temperature at the inlet of the particulate matter control device exceeds 17 °C above the maximum demonstrated temperature of the particulate matter control device (4-hour block average), as specified under “Definitions” ([§ 60.1465](#)).

(c) If your municipal waste combustion unit uses activated carbon to control dioxins/furans or mercury emissions, you must maintain an 8-hour block average carbon feed rate at or above the highest average level established during the most recent dioxins/furans or mercury test.

(d) If your municipal waste combustion unit uses activated carbon to control dioxins/furans or mercury emissions, you must evaluate total carbon usage for each calendar quarter. The total amount of carbon purchased and delivered to your municipal waste combustion plant must be at or above the required quarterly usage of carbon. At your option, you may choose to evaluate required quarterly carbon usage on a municipal waste combustion unit basis for each individual municipal waste combustion unit at your plant. Calculate the required quarterly usage of carbon using equation 4 or 5 in [§ 60.1460\(f\)](#).

(e) Your municipal waste combustion unit is exempt from limits on load level, temperature at the inlet of the particulate matter control device, and carbon feed rate during any of five situations:

(1) During your annual tests for dioxins/furans.

(2) During your annual mercury tests (for carbon feed rate requirements only).

(3) During the 2 weeks preceding your annual tests for dioxins/furans.

(4) During the 2 weeks preceding your annual mercury tests (for carbon feed rate requirements only).

(5) Whenever the Administrator or delegated State authority permits you to do any of five activities:

(i) Evaluate system performance.

(ii) Test new technology or control technologies.

(iii) Perform diagnostic testing.

(iv) Perform other activities to improve the performance of your municipal waste combustion unit.

(v) Perform other activities to advance the state of the art for emission controls for your municipal waste combustion unit.

§ 60.1205 What happens to the operating requirements during periods of startup, shutdown, and malfunction?

(a) The operating requirements of this subpart apply at all times except during periods of municipal waste combustion unit startup, shutdown, or malfunction.

(b) Each startup, shutdown, or malfunction must not last for longer than 3 hours.

Emission Limits

§ 60.1210 What pollutants are regulated by this subpart?

Eleven pollutants, in four groupings, are regulated:

(a) **Organics.** Dioxins/furans.

(b) **Metals.**

(1) Cadmium.

(2) Lead.

(3) Mercury.

(4) Opacity.

(5) Particulate matter.

(c) **Acid gases.**

(1) Hydrogen chloride.

(2) Nitrogen oxides.

(3) Sulfur dioxide.

(d) **Other.**

(1) Carbon monoxide.

(2) Fugitive ash.

§ 60.1215 What emission limits must I meet? By when?

You must meet the emission limits specified in tables 1 and 2 of this subpart. You must meet the limits 60 days after your municipal waste combustion unit reaches the maximum load level but no later than 180 days after its initial startup.

§ 60.1220 What happens to the emission limits during periods of startup, shutdown, and malfunction?

(a) The emission limits of this subpart apply at all times except during periods of municipal waste combustion unit startup, shutdown, or malfunction.

- (b) Each startup, shutdown, or malfunction must not last for longer than 3 hours.
- (c) A maximum of 3 hours of test data can be dismissed from compliance calculations during periods of startup, shutdown, or malfunction.
- (d) During startup, shutdown, or malfunction periods longer than 3 hours, emissions data cannot be discarded from compliance calculations and all provisions under [§ 60.11\(d\)](#) apply.

Continuous Emission Monitoring

§ 60.1225 What types of continuous emission monitoring must I perform?

To continuously monitor emissions, you must perform four tasks:

- (a) Install continuous emission monitoring systems for certain gaseous pollutants.
- (b) Make sure your continuous emission monitoring systems are operating correctly.
- (c) Make sure you obtain the minimum amount of monitoring data.
- (d) Install a continuous opacity monitoring system.

§ 60.1230 What continuous emission monitoring systems must I install for gaseous pollutants?

- (a) You must install, calibrate, maintain, and operate continuous emission monitoring systems for oxygen (or carbon dioxide), sulfur dioxide, and carbon monoxide. If you operate a Class I municipal waste combustion unit, you must also install, calibrate, maintain, and operate a continuous emission monitoring system for nitrogen oxides. Install the continuous emission monitoring systems for sulfur dioxide, nitrogen oxides, and oxygen (or carbon dioxide) at the outlet of the air pollution control device.
- (b) You must install, evaluate, and operate each continuous emission monitoring system according to the “Monitoring Requirements” in [§ 60.13](#).
- (c) You must monitor the oxygen (or carbon dioxide) concentration at each location where you monitor sulfur dioxide and carbon monoxide. Additionally, if you operate a Class I municipal waste combustion unit, you must also monitor the oxygen (or carbon dioxide) concentration at the location where you monitor nitrogen oxides.
- (d) You may choose to monitor carbon dioxide instead of oxygen as a diluent gas. If you choose to monitor carbon dioxide, then an oxygen monitor is not required, and you must follow the requirements in [§ 60.1255](#).

(e) If you choose to demonstrate compliance by monitoring the percent reduction of sulfur dioxide, you must also install continuous emission monitoring systems for sulfur dioxide and oxygen (or carbon dioxide) at the inlet of the air pollution control device.

(f) If you prefer to use an alternative sulfur dioxide monitoring method, such as parametric monitoring, or cannot monitor emissions at the inlet of the air pollution control device to determine percent reduction, you can apply to the Administrator for approval to use an alternative monitoring method under [§ 60.13\(i\)](#).

§ 60.1235 How are the data from the continuous emission monitoring systems used?

You must use data from the continuous emission monitoring systems for sulfur dioxide, nitrogen oxides, and carbon monoxide to demonstrate continuous compliance with the emission limits specified in tables 1 and 2 of this subpart. To demonstrate compliance for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash, see [§ 60.1290](#).

§ 60.1240 How do I make sure my continuous emission monitoring systems are operating correctly?

(a) Conduct initial, daily, quarterly, and annual evaluations of your continuous emission monitoring systems that measure oxygen (or carbon dioxide), sulfur dioxide, nitrogen oxides (Class I municipal waste combustion units only), and carbon monoxide.

(b) Complete your initial evaluation of the continuous emission monitoring systems within 60 days after your municipal waste combustion unit reaches the maximum load level at which it will operate, but no later than 180 days after its initial startup.

(c) For initial and annual evaluations, collect data concurrently (or within 30 to 60 minutes) using your oxygen (or carbon dioxide) continuous emission monitoring system, your sulfur dioxide, nitrogen oxides, or carbon monoxide continuous emission monitoring systems, as appropriate, and the appropriate test methods specified in table 3 of this subpart. Collect the data during each initial and annual evaluation of your continuous emission monitoring systems following the applicable performance specifications in [appendix B of this part](#). table 4 of this subpart shows the performance specifications that apply to each continuous emission monitoring system.

(d) Follow the quality assurance procedures in Procedure 1 of [appendix F of this part](#) for each continuous emission monitoring system. The procedures include daily calibration drift and quarterly accuracy determinations.

§ 60.1245 Am I exempt from any appendix B or appendix F requirements to evaluate continuous emission monitoring systems?

Yes, the accuracy tests for your sulfur dioxide continuous emission monitoring system require you to also evaluate your oxygen (or carbon dioxide) continuous emission monitoring system. Therefore, your oxygen (or carbon dioxide) continuous emission monitoring system is exempt from two requirements:

- (a) Section 2.3 of Performance Specification 3 in [appendix B of this part](#) (relative accuracy requirement).
- (b) Section 5.1.1 of [appendix F of this part](#) (relative accuracy test audit).

§ 60.1250 What is my schedule for evaluating continuous emission monitoring systems?

- (a) Conduct annual evaluations of your continuous emission monitoring systems no more than 13 months after the previous evaluation was conducted.
- (b) Evaluate your continuous emission monitoring systems daily and quarterly as specified in [appendix F of this part](#).

§ 60.1255 What must I do if I choose to monitor carbon dioxide instead of oxygen as a diluent gas?

You must establish the relationship between oxygen and carbon dioxide during the initial evaluation of your continuous emission monitoring systems. You may reestablish the relationship during annual evaluations. To establish the relationship use three procedures:

- (a) Use EPA Reference Method 3A or 3B in [appendix A of this part](#) to determine oxygen concentration at the location of your carbon dioxide monitor.
- (b) Conduct at least three test runs for oxygen. Make sure each test run represents a 1-hour average and that sampling continues for at least 30 minutes in each hour.
- (c) Use the fuel-factor equation in EPA Reference Method 3B in [appendix A of this part](#) to determine the relationship between oxygen and carbon dioxide.

§ 60.1260 What is the minimum amount of monitoring data I must collect with my continuous emission monitoring systems and is the data collection requirement enforceable?

(a) Where continuous emission monitoring systems are required, obtain 1-hour arithmetic averages. Make sure the averages for sulfur dioxide, nitrogen oxides, and carbon monoxide are in parts per million by dry volume at 7 percent oxygen (or the equivalent carbon dioxide level). Use the 1-hour averages of oxygen (or carbon dioxide) data from your continuous emission monitoring system to determine the actual oxygen (or carbon dioxide) level and to calculate emissions at 7 percent oxygen (or the equivalent carbon dioxide level).

(b) Obtain at least two data points per hour in order to calculate a valid 1-hour arithmetic average. [Section 60.13\(e\)\(2\)](#) requires your continuous emission monitoring systems to complete at least one cycle of operation (sampling, analyzing, and data recording) for each 15-minute period.

(c) Obtain valid 1-hour averages for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter. An operating day is any day the unit combusts any municipal solid waste or refuse-derived fuel.

(d) If you do not obtain the minimum data required in [paragraphs \(a\)](#) through [\(c\)](#) of this section, you are in violation of the data collection requirement regardless of the emission level monitored, and you must notify the Administrator according to [§ 60.1410\(e\)](#).

(e) If you do not obtain the minimum data required in [paragraphs \(a\)](#) through [\(c\)](#) of this section, you must still use all valid data from the continuous emission monitoring systems in calculating emission concentrations and percent reductions in accordance with [§ 60.1265](#).

§ 60.1265 How do I convert my 1-hour arithmetic averages into the appropriate averaging times and units?

(a) Use the equation in [§ 60.1460\(a\)](#) to calculate emissions at 7 percent oxygen.

(b) Use EPA Reference Method 19 in [appendix A of this part, section 4.3](#), to calculate the daily geometric average concentrations of sulfur dioxide emissions. If you are monitoring the percent reduction of sulfur dioxide, use EPA Reference Method 19 in [appendix A of this part, section 5.4](#), to determine the daily geometric average percent reduction of potential sulfur dioxide emissions.

(c) If you operate a Class I municipal waste combustion unit, use EPA Reference Method 19 in [appendix A of this part, section 4.1](#), to calculate the daily arithmetic average for concentrations of nitrogen oxides.

(d) Use EPA Reference Method 19 in [appendix A of this part, section 4.1](#), to calculate the 4-hour or 24-hour daily block averages (as applicable) for concentrations of carbon monoxide.

§ 60.1270 What is required for my continuous opacity monitoring system and how are the data used?

- (a) Install, calibrate, maintain, and operate a continuous opacity monitoring system.
- (b) Install, evaluate, and operate each continuous opacity monitoring system according to [§ 60.13](#).
- (c) Complete an initial evaluation of your continuous opacity monitoring system according to Performance Specification 1 in [appendix B of this part](#). Complete the evaluation within 60 days after your municipal waste combustion unit reaches the maximum load level at which it will operate, but no more than 180 days after its initial startup.
- (d) Complete each annual evaluation of your continuous opacity monitoring system no more than 13 months after the previous evaluation.
- (e) Use tests conducted according to EPA Reference Method 9 in [appendix A of this part](#), as specified in [§ 60.1300](#), to determine compliance with the opacity limit in table 1 of this subpart. The data obtained from your continuous opacity monitoring system are not used to determine compliance with the opacity limit.

§ 60.1275 What additional requirements must I meet for the operation of my continuous emission monitoring systems and continuous opacity monitoring system?

Use the required span values and applicable performance specifications in table 4 of this subpart.

§ 60.1280 What must I do if any of my continuous emission monitoring systems are temporarily unavailable to meet the data collection requirements?

Refer to table 4 of this subpart. It shows alternate methods for collecting data when systems malfunction or when repairs, calibration checks, or zero and span checks keep you from collecting the minimum amount of data.

Stack Testing

§ 60.1285 What types of stack tests must I conduct?

Conduct initial and annual stack tests to measure the emission levels of dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash.

§ 60.1290 How are the stack test data used?

You must use results of stack tests for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash to demonstrate compliance with the emission limits in table 1 of this subpart. To demonstrate compliance for carbon monoxide, nitrogen oxides, and sulfur dioxide, see [§ 60.1235](#).

§ 60.1295 What schedule must I follow for the stack testing?

- (a) Conduct initial stack tests for the pollutants listed in [§ 60.1285](#) within 60 days after your municipal waste combustion unit reaches the maximum load level at which it will operate, but no later than 180 days after its initial startup.
- (b) Conduct annual stack tests for the same pollutants after the initial stack test. Conduct each annual stack test no later than 13 months after the previous stack test.

§ 60.1300 What test methods must I use to stack test?

- (a) Follow table 5 of this subpart to establish the sampling location and to determine pollutant concentrations, number of traverse points, individual test methods, and other specific testing requirements for the different pollutants.
- (b) Make sure that stack tests for all the pollutants consist of at least three test runs, as specified in [§ 60.8](#). Use the average of the pollutant emission concentrations from the three test runs to determine compliance with the emission limits in table 1 of this subpart.
- (c) Obtain an oxygen (or carbon dioxide) measurement at the same time as your pollutant measurements to determine diluent gas levels, as specified in [§ 60.1230](#).
- (d) Use the equations in [§ 60.1460\(a\)](#) to calculate emission levels at 7 percent oxygen (or an equivalent carbon dioxide basis), the percent reduction in potential hydrogen chloride emissions, and the reduction efficiency for mercury emissions. See the individual test methods in table 5 of this subpart for other required equations.
- (e) You can apply to the Administrator for approval under [§ 60.8\(b\)](#) to use a reference method with minor changes in methodology, use an equivalent method, use an alternative method the results of which the Administrator has determined are adequate for demonstrating compliance, waive the requirement for a performance test because you have demonstrated by other means that you are in compliance, or use a shorter sampling time or smaller sampling volume.

§ 60.1305 May I conduct stack testing less often?

(a) You may test less often if you own or operate a Class II municipal waste combustion unit and if all stack tests for a given pollutant over 3 consecutive years show you comply with the emission limit. In that case, you are not required to conduct a stack test for that pollutant for the next 2 years. However, you must conduct another stack test within 36 months of the anniversary date of the third consecutive stack test that shows you comply with the emission limit. Thereafter, you must perform stack tests every 3rd year but no later than 36 months following the previous stack tests. If a stack test shows noncompliance with an emission limit, you must conduct annual stack tests for that pollutant until all stack tests over 3 consecutive years show compliance with the emission limit for that pollutant. The provision applies to all pollutants subject to stack testing requirements: dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash.

(b) You can test less often for dioxins/furans emissions if you own or operate a municipal waste combustion plant that meets two conditions. First, you have multiple municipal waste combustion units onsite that are subject to this subpart. Second, all those municipal waste combustion units have demonstrated levels of dioxins/furans emissions less than or equal to 7 nanograms per dry standard cubic meter (total mass) for 2 consecutive years. In that case, you may choose to conduct annual stack tests on only one municipal waste combustion unit per year at your plant. The provision only applies to stack testing for dioxins/furans emissions.

(1) Conduct the stack test no more than 13 months following a stack test on any municipal waste combustion unit subject to this subpart at your plant. Each year, test a different municipal waste combustion unit subject to this subpart and test all municipal waste combustion units subject to this subpart in a sequence that you determine. Once you determine a testing sequence, it must not be changed without approval by the Administrator.

(2) If each annual stack test shows levels of dioxins/furans emissions less than or equal to 7 nanograms per dry standard cubic meter (total mass), you may continue stack tests on only one municipal waste combustion unit subject to this subpart per year.

(3) If any annual stack test indicates levels of dioxins/furans emissions greater than 7 nanograms per dry standard cubic meter (total mass), conduct subsequent annual stack tests on all municipal waste combustion units subject to this subpart at your plant. You may return to testing one municipal waste combustion unit subject to this subpart per year if you can demonstrate dioxins/furans emission levels less than or equal to 7 nanograms per dry standard cubic meter (total mass) for all municipal waste combustion units at your plant subject to this subpart for 2 consecutive years.

§ 60.1310 May I deviate from the 13-month testing schedule if unforeseen circumstances arise?

You may not deviate from the 13-month testing schedules specified in [§§ 60.1295\(b\)](#) and [60.1305\(b\)\(1\)](#) unless you apply to the Administrator for an alternative schedule, and the Administrator approves your request for alternate scheduling prior to the date on which you would otherwise have been required to conduct the next stack test.

Other Monitoring Requirements

§ 60.1315 Must I meet other requirements for continuous monitoring?

You must also monitor three operating parameters:

- (a) Load level of each municipal waste combustion unit.
- (b) Temperature of flue gases at the inlet of your particulate matter air pollution control device.
- (c) Carbon feed rate if activated carbon is used to control dioxins/furans or mercury emissions.

§ 60.1320 How do I monitor the load of my municipal waste combustion unit?

(a) If your municipal waste combustion unit generates steam, you must install, calibrate, maintain, and operate a steam flowmeter or a feed water flowmeter and meet five requirements:

- (1) Continuously measure and record the measurements of steam (or feed water) in kilograms (or pounds) per hour.
- (2) Calculate your steam (or feed water) flow in 4-hour block averages.
- (3) Calculate the steam (or feed water) flow rate using the method in “American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1—1964 (R1991),” section 4 (incorporated by reference in [§ 60.17\(h\)\(2\)](#)).
- (4) Design, construct, install, calibrate, and use nozzles or orifices for flow rate measurements, using the recommendations in “American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, part II of Fluid Meters,” 6th Edition (1971), chapter 4 (incorporated by reference in [§ 60.17\(h\)\(3\)](#)).
- (5) Before each dioxins/furans stack test, or at least once a year, calibrate all signal conversion elements associated with steam (or feed water) flow measurements according to the manufacturer instructions.

(b) If your municipal waste combustion unit does not generate steam, or, if your municipal waste combustion units have shared steam systems and steam load cannot be estimated per unit, you must determine, to the satisfaction of the Administrator, one or more operating parameters that can be used to continuously estimate load level (for example, the feed rate of municipal solid waste or refuse-derived fuel). You must continuously monitor the selected parameters.

§ 60.1325 How do I monitor the temperature of flue gases at the inlet of my particulate matter control device?

You must install, calibrate, maintain, and operate a device to continuously measure the temperature of the flue gas stream at the inlet of each particulate matter control device.

§ 60.1330 How do I monitor the injection rate of activated carbon?

If your municipal waste combustion unit uses activated carbon to control dioxins/furans or mercury emissions, you must meet three requirements:

- (a) Select a carbon injection system operating parameter that can be used to calculate carbon feed rate (for example, screw feeder speed).
- (b) During each dioxins/furans and mercury stack test, determine the average carbon feed rate in kilograms (or pounds) per hour. Also, determine the average operating parameter level that correlates to the carbon feed rate. Establish a relationship between the operating parameter and the carbon feed rate in order to calculate the carbon feed rate based on the operating parameter level.
- (c) Continuously monitor the selected operating parameter during all periods when the municipal waste combustion unit is operating and combusting waste, and calculate the 8-hour block average carbon feed rate in kilograms (or pounds) per hour, based on the selected operating parameter. When calculating the 8-hour block average, do two things:
 - (1) Exclude hours when the municipal waste combustion unit is not operating.
 - (2) Include hours when the municipal waste combustion unit is operating but the carbon feed system is not working correctly.

§ 60.1335 What is the minimum amount of monitoring data I must collect with my continuous parameter monitoring systems and is the data collection requirement enforceable?

- (a) Where continuous parameter monitoring systems are used, obtain 1-hour arithmetic averages for three parameters:
 - (1) Load level of the municipal waste combustion unit.
 - (2) Temperature of the flue gases at the inlet of your particulate matter control device.

(3) Carbon feed rate if activated carbon is used to control dioxins/furans or mercury emissions.

(b) Obtain at least two data points per hour in order to calculate a valid 1-hour arithmetic average.

(c) Obtain valid 1-hour averages for at least 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter. An operating day is any day the unit combusts any municipal solid waste or refuse-derived fuel.

(d) If you do not obtain the minimum data required in [paragraphs \(a\)](#) through [\(c\)](#) of this section, you are in violation of the data collection requirement and you must notify the Administrator according to [§ 60.1410\(e\)](#).

Recordkeeping

§ 60.1340 What records must I keep?

You must keep five types of records:

- (a) Materials separation plan and siting analysis.
- (b) Operator training and certification.
- (c) Stack tests.
- (d) Continuously monitored pollutants and parameters.
- (e) Carbon feed rate.

§ 60.1345 Where must I keep my records and for how long?

- (a) Keep all records onsite in paper copy or electronic format unless the Administrator approves another format.
- (b) Keep all records on each municipal waste combustion unit for at least 5 years.
- (c) Make all records available for submittal to the Administrator, or for onsite review by an inspector.

§ 60.1350 What records must I keep for the materials separation plan and siting analysis?

You must keep records of five items:

- (a) The date of each record.
- (b) The final materials separation plan.
- (c) The siting analysis.
- (d) A record of the location and date of the public meetings.
- (e) Your responses to the public comments received during the public comment periods.

§ 60.1355 What records must I keep for operator training and certification?

You must keep records of six items:

(a) ***Records of provisional certifications.*** Include three items:

- (1) For your municipal waste combustion plant, names of the chief facility operator, shift supervisors, and control room operators who are provisionally certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program.
- (2) Dates of the initial provisional certifications.
- (3) Documentation showing current provisional certifications.

(b) ***Records of full certifications.*** Include three items:

- (1) For your municipal waste combustion plant, names of the chief facility operator, shift supervisors, and control room operators who are fully certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program.
- (2) Dates of initial and renewal full certifications.
- (3) Documentation showing current full certifications.

(c) ***Records showing completion of the operator training course.*** Include three items:

- (1) For your municipal waste combustion plant, names of the chief facility operator, shift supervisors, and control room operators who have completed the EPA or State municipal waste combustion operator training course.
- (2) Dates of completion of the operator training course.
- (3) Documentation showing completion of the operator training course.

(d) **Records of reviews for plant-specific operating manuals.** Include three items:

- (1) Names of persons who have reviewed the operating manual.
- (2) Date of the initial review.
- (3) Dates of subsequent annual reviews.

(e) **Records of when a certified operator is temporarily offsite.** Include two main items:

(1) If the certified chief facility operator and certified shift supervisor are offsite for more than 12 hours, but for 2 weeks or less, and no other certified operator is onsite, record the dates that the certified chief facility operator and certified shift supervisor were offsite.

(2) When the certified chief facility operator and certified shift supervisor are offsite for more than 2 weeks and no other certified operator is onsite, keep records of four items:

- (i) Your notice that all certified persons are offsite.
- (ii) The conditions that cause those people to be offsite.
- (iii) The corrective actions you are taking to ensure a certified chief facility operator or certified shift supervisor is onsite.
- (iv) Copies of the written reports submitted every 4 weeks that summarize the actions taken to ensure that a certified chief facility operator or certified shift supervisor will be onsite.

(f) **Records of calendar dates.** Include the calendar date on each record.

§ 60.1360 What records must I keep for stack tests?

For stack tests required under [§ 60.1285](#), you must keep records of four items:

(a) The results of the stack tests for eight pollutants or parameters recorded in the appropriate units of measure specified in table 1 of this subpart:

- (1) Dioxins/furans.
- (2) Cadmium.
- (3) Lead.
- (4) Mercury.
- (5) Opacity.

- (6) Particulate matter.
- (7) Hydrogen chloride.
- (8) Fugitive ash.
- (b) Test reports including supporting calculations that document the results of all stack tests.
- (c) The maximum demonstrated load of your municipal waste combustion units and maximum temperature at the inlet of your particulate matter control device during all stack tests for dioxins/furans emissions.
- (d) The calendar date of each record.

§ 60.1365 What records must I keep for continuously monitored pollutants or parameters?

You must keep records of eight items:

(a) ***Records of monitoring data.*** Document six 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) For Class I municipal waste combustion units only, all 1-hour average concentrations of nitrogen oxides emissions.
- (4) All 1-hour average concentrations of carbon monoxide emissions.
- (5) All 1-hour average load levels of your municipal waste combustion unit.
- (6) All 1-hour average flue gas temperatures at the inlet of the particulate matter control device.

(b) ***Records of average concentrations and percent reductions.*** Document five parameters:

- (1) All 24-hour daily block geometric average concentrations of sulfur dioxide emissions or average percent reductions of sulfur dioxide emissions.
- (2) For Class I municipal waste combustion units only, all 24-hour daily arithmetic average concentrations of nitrogen oxides emissions.

(3) All 4-hour block or 24-hour daily block arithmetic average concentrations of carbon monoxide emissions.

(4) All 4-hour block arithmetic average load levels of your municipal waste combustion unit.

(5) All 4-hour block arithmetic average flue gas temperatures at the inlet of the particulate matter control device.

(c) **Records of exceedances.** Document three items:

(1) Calendar dates whenever any of the five pollutant or parameter levels recorded in [paragraph \(b\)](#) of this section or the opacity level recorded in [paragraph \(a\)\(1\)](#) of this section did not meet the emission limits or operating levels specified in this subpart.

(2) Reasons you exceeded the applicable emission limits or operating levels.

(3) Corrective actions you took, or are taking, to meet the emission limits or operating levels.

(d) **Records of minimum data.** Document three items:

(1) Calendar dates for which you did not collect the minimum amount of data required under [§§ 60.1260](#) and [60.1335](#). Record the dates for five types of pollutants and parameters:

(i) Sulfur dioxide emissions.

(ii) For Class I municipal waste combustion units only, nitrogen oxides emissions.

(iii) Carbon monoxide emissions.

(iv) Load levels of your municipal waste combustion unit.

(v) Temperatures of the flue gases at the inlet of the particulate matter control device.

(2) Reasons you did not collect the minimum data.

(3) Corrective actions you took, or are taking, to obtain the required amount of data.

(e) **Records of exclusions.** Document each time you have excluded data from your calculation of averages for any of the following five pollutants or parameters and the reasons the data were excluded:

(1) Sulfur dioxide emissions.

(2) For Class I municipal waste combustion units only, nitrogen oxides emissions.

(3) Carbon monoxide emissions.

(4) Load levels of your municipal waste combustion unit.

(5) Temperatures of the flue gases at the inlet of the particulate matter control device.

(f) **Records of drift and accuracy.** Document the results of your daily drift tests and quarterly accuracy determinations according to Procedure 1 of [appendix F of this part](#). Keep the records for the sulfur dioxide, nitrogen oxides (Class I municipal waste combustion units only), and carbon monoxide continuous emissions monitoring systems.

(g) **Records of the relationship between oxygen and carbon dioxide.** If you choose to monitor carbon dioxide instead of oxygen as a diluent gas, document the relationship between oxygen and carbon dioxide, as specified in [§ 60.1255](#).

(h) **Records of calendar dates.** Include the calendar date on each record.

§ 60.1370 What records must I keep for municipal waste combustion units that use activated carbon?

For municipal waste combustion units that use activated carbon to control dioxins/furans or mercury emissions, you must keep records of five items:

(a) **Records of average carbon feed rate.** Document five items:

(1) Average carbon feed rate in kilograms (or pounds) per hour during all stack tests for dioxins/furans and mercury emissions. Include supporting calculations in the records.

(2) For the operating parameter chosen to monitor carbon feed rate, average operating level during all stack tests for dioxins/furans and mercury emissions. Include supporting data that document the relationship between the operating parameter and the carbon feed rate.

(3) All 8-hour block average carbon feed rates in kilograms (or pounds) per hour calculated from the monitored operating parameter.

(4) Total carbon purchased and delivered to the municipal waste combustion plant for each calendar quarter. If you choose to evaluate total carbon purchased and delivered on a municipal waste combustion unit basis, record the total carbon purchased and delivered for each individual municipal waste combustion unit at your plant. Include supporting documentation.

(5) Required quarterly usage of carbon for the municipal waste combustion plant, calculated using equation 4 or 5 in [§ 60.1460\(f\)](#). If you choose to evaluate required quarterly usage for carbon on a municipal waste combustion unit basis, record the required quarterly usage for each municipal waste combustion unit at your plant. Include supporting calculations.

(b) **Records of low carbon feed rates.** Document three items:

(1) The calendar dates when the average carbon feed rate over an 8-hour block was less than the average carbon feed rates determined during the most recent stack test for dioxins/furans or mercury emissions (whichever has a higher feed rate).

(2) Reasons for the low carbon feed rates.

(3) Corrective actions you took or are taking to meet the 8-hour average carbon feed rate requirement.

(c) **Records of minimum carbon feed rate data.** Document three items:

(1) Calendar dates for which you did not collect the minimum amount of carbon feed rate data required under [§ 60.1335](#).

(2) Reasons you did not collect the minimum data.

(3) Corrective actions you took or are taking to get the required amount of data.

(d) **Records of exclusions.** Document each time you have excluded data from your calculation of average carbon feed rates and the reasons the data were excluded.

(e) **Records of calendar dates.** Include the calendar date on each record.

Reporting

§ 60.1375 What reports must I submit before I submit my notice of construction?

(a) If you are required to submit an application for a construction permit under [40 CFR part 51, subpart I](#), or [40 CFR part 52](#), you must submit five items by the date you submit your application.

(1) Your draft materials separation plan, as specified in [§ 60.1065](#).

(2) Your revised materials separation plan, as specified in [§ 60.1085\(c\)](#).

(3) Your notice of the initial public meeting for your draft materials separation plan, as specified in [§ 60.1070\(b\)](#).

(4) A transcript of the initial public meeting, as specified in [§ 60.1080\(f\)](#).

(5) The document that summarizes your responses to the public comments you received during the initial public comment period, as specified in [§ 60.1085\(a\)](#).

(b) If you are not required to submit an application for a construction permit under [40 CFR part 51, subpart I](#), or [40 CFR part 52](#), you must submit the items in [paragraph \(a\)](#) of this section with your notice of construction.

§ 60.1380 What must I include in my notice of construction?

(a) Include ten items:

- (1) A statement of your intent to construct the municipal waste combustion unit.
- (2) The planned initial startup date of your municipal waste combustion unit.
- (3) The types of fuels you plan to combust in your municipal waste combustion unit.
- (4) The capacity of your municipal waste combustion unit including supporting capacity calculations, as specified in [§ 60.1460\(d\)](#) and [\(e\)](#).
- (5) Your siting analysis, as specified in [§ 60.1125](#).
- (6) Your final materials separation plan, as specified in [§ 60.1100\(b\)](#).
- (7) Your notice of the second public meeting (siting analysis meeting), as specified in [§ 60.1130\(b\)](#).
- (8) A transcript of the second public meeting, as specified in [§ 60.1140\(d\)](#).
- (9) A copy of the document that summarizes your responses to the public comments you received during the second public comment period, as specified in [§ 60.1145\(a\)](#).
- (10) Your final siting analysis, as specified in [§ 60.1145\(c\)](#).

(b) Submit your notice of construction no later than 30 days after you commence construction, reconstruction, or modification of your municipal waste combustion unit.

§ 60.1385 What reports must I submit after I submit my notice of construction and in what form?

(a) Submit an initial report and annual reports, plus semiannual reports for any emission or parameter level that does not meet the limits specified in this subpart.

(b) Submit all reports on paper, postmarked on or before the submittal dates in [§§ 60.1395](#), [60.1405](#), and [60.1420](#). If the Administrator agrees, you may submit electronic reports.

(c) Keep a copy of all reports required by [§§ 60.1400](#), [60.1410](#), and [60.1425](#) onsite for 5 years.

§ 60.1390 What are the appropriate units of measurement for reporting my data?

See tables 1 and 2 of this subpart for appropriate units of measurement.

§ 60.1395 When must I submit the initial report?

As specified in [§ 60.7\(c\)](#), submit your initial report within 60 days after your municipal waste combustion unit reaches the maximum load level at which it will operate, but no later than 180 days after its initial startup.

§ 60.1400 What must I include in my initial report?

You must include seven items:

(a) The emission levels measured on the date of the initial evaluation of your continuous emission monitoring systems for all of the following five pollutants or parameters as recorded in accordance with [§ 60.1365\(b\)](#).

(1) The 24-hour daily geometric average concentration of sulfur dioxide emissions or the 24-hour daily geometric percent reduction of sulfur dioxide emissions.

(2) For Class I municipal waste combustion units only, the 24-hour daily arithmetic average concentration of nitrogen oxides emissions.

(3) The 4-hour block or 24-hour daily arithmetic average concentration of carbon monoxide emissions.

(4) The 4-hour block arithmetic average load level of your municipal waste combustion unit.

(5) The 4-hour block arithmetic average flue gas temperature at the inlet of the particulate matter control device.

(b) The results of the initial stack tests for eight pollutants or parameters (use appropriate units as specified in table 2 of this subpart):

(1) Dioxins/furans.

(2) Cadmium.

(3) Lead.

(4) Mercury.

- (5) Opacity.
 - (6) Particulate matter.
 - (7) Hydrogen chloride.
 - (8) Fugitive ash.
- (c) The test report that documents the initial stack tests including supporting calculations.
- (d) The initial performance evaluation of your continuous emissions monitoring systems. Use the applicable performance specifications in [appendix B of this part](#) in conducting the evaluation.
- (e) The maximum demonstrated load of your municipal waste combustion unit and the maximum demonstrated temperature of the flue gases at the inlet of the particulate matter control device. Use values established during your initial stack test for dioxins/furans emissions and include supporting calculations.
- (f) If your municipal waste combustion unit uses activated carbon to control dioxins/furans or mercury emissions, the average carbon feed rates that you recorded during the initial stack tests for dioxins/furans and mercury emissions. Include supporting calculations as specified in [§ 60.1370\(a\)\(1\)](#) and [\(2\)](#).
- (g) If you choose to monitor carbon dioxide instead of oxygen as a diluent gas, documentation of the relationship between oxygen and carbon dioxide, as specified in [§ 60.1255](#).

§ 60.1405 When must I submit the annual report?

Submit the annual report no later than February 1 of each year that follows the calendar year in which you collected the data. If you have an operating permit for any unit under title V of the Clean Air Act (CAA), the permit may require you to submit semiannual reports. [Parts 70](#) and [71 of this chapter](#) contain program requirements for permits.

§ 60.1410 What must I include in my annual report?

Summarize data collected for all pollutants and parameters regulated under this subpart. Your summary must include twelve items:

- (a) The results of the annual stack test, using appropriate units, for eight pollutants, as recorded under [§ 60.1360\(a\)](#):
- (1) Dioxins/furans.
 - (2) Cadmium.

- (3) Lead.
- (4) Mercury.
- (5) Particulate matter.
- (6) Opacity.
- (7) Hydrogen chloride.
- (8) Fugitive ash.

(b) A list of the highest average levels recorded, in the appropriate units. List the values for five pollutants or parameters:

- (1) Sulfur dioxide emissions.
- (2) For Class I municipal waste combustion units only, nitrogen oxides emissions.
- (3) Carbon monoxide emissions.
- (4) Load level of the municipal waste combustion unit.
- (5) Temperature of the flue gases at the inlet of the particulate matter air pollution control device (4-hour block average).

(c) The highest 6-minute opacity level measured. Base the value on all 6-minute average opacity levels recorded by your continuous opacity monitoring system ([§ 60.1365\(a\)\(1\)](#)).

(d) For municipal waste combustion units that use activated carbon for controlling dioxins/furans or mercury emissions, include four records:

- (1) The average carbon feed rates recorded during the most recent dioxins/furans and mercury stack tests.
- (2) The lowest 8-hour block average carbon feed rate recorded during the year.
- (3) The total carbon purchased and delivered to the municipal waste combustion plant for each calendar quarter. If you choose to evaluate total carbon purchased and delivered on a municipal waste combustion unit basis, record the total carbon purchased and delivered for each individual municipal waste combustion unit at your plant.
- (4) The required quarterly carbon usage of your municipal waste combustion plant calculated using equation 4 or 5 in [§ 60.1460\(f\)](#). If you choose to evaluate required quarterly usage for carbon on a municipal waste combustion unit basis, record the required quarterly usage for each municipal waste combustion unit at your plant.

(e) The total number of days that you did not obtain the minimum number of hours of data for six pollutants or parameters. Include the reasons you did not obtain the data and corrective actions that you have taken to obtain the data in the future. Include data on:

- (1) Sulfur dioxide emissions.
- (2) For Class I municipal waste combustion units only, nitrogen oxides emissions.
- (3) Carbon monoxide emissions.
- (4) Load level of the municipal waste combustion unit.
- (5) Temperature of the flue gases at the inlet of the particulate matter air pollution control device.
- (6) Carbon feed rate.

(f) The number of hours you have excluded data from the calculation of average levels (include the reasons for excluding it). Include data for six pollutants or parameters:

- (1) Sulfur dioxide emissions.
- (2) For Class I municipal waste combustion units only, nitrogen oxides emissions.
- (3) Carbon monoxide emissions.
- (4) Load level of the municipal waste combustion unit.
- (5) Temperature of the flue gases at the inlet of the particulate matter air pollution control device.
- (6) Carbon feed rate.

(g) A notice of your intent to begin a reduced stack testing schedule for dioxins/furans emissions during the following calendar year, if you are eligible for alternative scheduling ([§ 60.1305\(a\)](#) or [\(b\)](#)).

(h) A notice of your intent to begin a reduced stack testing schedule for other pollutants during the following calendar year if you are eligible for alternative scheduling ([§ 60.1305\(a\)](#)).

(i) A summary of any emission or parameter level that did not meet the limits specified in this subpart.

(j) A summary of the data in [paragraphs \(a\)](#) through [\(d\)](#) of this section from the year preceding the reporting year which gives the Administrator a summary of the performance of the municipal waste combustion unit over a 2-year period.

(k) If you choose to monitor carbon dioxide instead of oxygen as a diluent gas, documentation of the relationship between oxygen and carbon dioxide, as specified in [§ 60.1255](#).

(l) Documentation of periods when all certified chief facility operators and certified shift supervisors are offsite for more than 12 hours.

§ 60.1415 What must I do if I am out of compliance with the requirements of this subpart?

You must submit a semiannual report on any recorded emission or parameter level that does not meet the requirements specified in this subpart.

§ 60.1420 If a semiannual report is required, when must I submit it?

(a) For data collected during the first half of a calendar year, submit your semiannual report by August 1 of that year.

(b) For data you collected during the second half of the calendar year, submit your semiannual report by February 1 of the following year.

§ 60.1425 What must I include in the semiannual out-of-compliance reports?

You must include three items in the semiannual report:

(a) For any of the following six pollutants or parameters that exceeded the limits specified in this subpart, include the calendar date they exceeded the limits, the averaged and recorded data for that date, the reasons for exceeding the limits, and your corrective actions:

(1) Concentration or percent reduction of sulfur dioxide emissions.

(2) For Class I municipal waste combustion units only, concentration of nitrogen oxides emissions.

(3) Concentration of carbon monoxide emissions.

(4) Load level of your municipal waste combustion unit.

(5) Temperature of the flue gases at the inlet of your particulate matter air pollution control device.

(6) Average 6-minute opacity level. The data obtained from your continuous opacity monitoring system are not used to determine compliance with the limit on opacity emissions.

(b) If the results of your annual stack tests (as recorded in [§ 60.1360\(a\)](#)) show emissions above the limits specified in table 1 of this subpart for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash, include a copy of the test report that documents the emission levels and your corrective actions.

(c) For municipal waste combustion units that apply activated carbon to control dioxins/furans or mercury emissions, include two items:

(1) Documentation of all dates when the 8-hour block average carbon feed rate (calculated from the carbon injection system operating parameter) is less than the highest carbon feed rate established during the most recent mercury and dioxins/furans stack test (as specified in [§ 60.1370\(a\)\(1\)](#)). Include four items:

- (i) Eight-hour average carbon feed rate.
- (ii) Reasons for occurrences of low carbon feed rates.
- (iii) The corrective actions you have taken to meet the carbon feed rate requirement.
- (iv) The calendar date.

(2) Documentation of each quarter when total carbon purchased and delivered to the municipal waste combustion plant is less than the total required quarterly usage of carbon. If you choose to evaluate total carbon purchased and delivered on a municipal waste combustion unit basis, record the total carbon purchased and delivered for each individual municipal waste combustion unit at your plant. Include five items:

- (i) Amount of carbon purchased and delivered to the plant.
- (ii) Required quarterly usage of carbon.
- (iii) Reasons for not meeting the required quarterly usage of carbon.
- (iv) The corrective actions you have taken to meet the required quarterly usage of carbon.
- (v) The calendar date.

§ 60.1430 Can reporting dates be changed?

(a) If the Administrator agrees, you may change the semiannual or annual reporting dates.

(b) See [§ 60.19\(c\)](#) for procedures to seek approval to change your reporting date.

Air Curtain Incinerators that Burn 100 Percent Yard Waste

§ 60.1435 What is an air curtain incinerator?

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 that type can be constructed above or below ground and with or without refractory walls and floor.

§ 60.1440 What is yard waste?

Yard waste is grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs. They come from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands. Yard waste does not include two items:

- (a) Construction, renovation, and demolition wastes that are exempt from the definition of “municipal solid waste” in [§ 60.1465](#).
- (b) Clean wood that is exempt from the definition of “municipal solid waste” in [§ 60.1465](#).

§ 60.1445 What are the emission limits for air curtain incinerators that burn 100 percent yard waste?

If your air curtain incinerator combusts 100 percent yard waste, you must meet only the emission limits in this section.

- (a) Within 60 days after your air curtain incinerator reaches the maximum load level at which it will operate, but no later than 180 days after its initial startup, you must meet two limits:
 - (1) The opacity limit is 10 percent (6-minute average) for air curtain incinerators that can combust at least 35 tons per day of municipal solid waste and no more than 250 tons per day of municipal solid waste.
 - (2) The opacity limit 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. Each malfunction must not exceed 3 hours.

§ 60.1450 How must I monitor opacity for air curtain incinerators that burn 100 percent yard waste?

- (a) Use EPA Reference Method 9 in [appendix A of this part](#) to determine compliance with the opacity limit.

(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 13 calendar months following the date of your previous test.

§ 60.1455 What are the recordkeeping and reporting requirements for air curtain incinerators that burn 100 percent yard waste?

(a) Provide a notice of construction that includes four items:

(1) Your intent to construct the air curtain incinerator.

(2) Your planned initial startup date.

(3) Types of fuels you plan to combust in your air curtain incinerator.

(4) The capacity of your incinerator, including supporting capacity calculations, as specified in [§ 60.1460\(d\)](#) and [\(e\)](#).

(b) Keep records of results of all opacity tests onsite in either paper copy or electronic format unless the Administrator approves another format.

(c) Keep all records for each incinerator for at least 5 years.

(d) Make all records available for submittal to the Administrator or for onsite review by an inspector.

(e) Submit the results (each 6-minute average) of the opacity tests by February 1 of the year following the year of the opacity emission test.

(f) Submit reports as a paper copy on or before the applicable submittal date. If the Administrator agrees, you may submit reports on electronic media.

(g) If the Administrator agrees, you may change the annual reporting dates (see [§ 60.19\(c\)](#)).

(h) Keep a copy of all reports onsite for a period of 5 years.

Equations

§ 60.1460 What equations must I use?

(a) *Concentration correction to 7 percent oxygen.* Correct any pollutant concentration to 7 percent oxygen using equation 1 of this section:

$$C_{7\%} = C_{\text{unc}} * (13.9) * (1/(20.9 - \text{CO}_2)) \text{ (Eq.1)}$$

Where:

$C_{7\%}$ = concentration corrected to 7 percent oxygen.

C_{unc} = uncorrected pollutant concentration.

CO_2 = concentration of oxygen (percent).

(b) **Percent reduction in potential mercury emissions.** Calculate the percent reduction in potential mercury emissions (% P_{Hg}) using equation 2 of this section:

$$\%P_{\text{Hg}} = (E_{i-o}) * (100/E_i) \text{ (Eq. 2)}$$

Where:

$\%P_{\text{Hg}}$ = percent reduction of potential mercury emissions

E_i = mercury emission concentration as measured at the air pollution control device inlet, corrected to 7 percent oxygen, dry basis

E_o = mercury emission concentration as measured at the air pollution control device outlet, corrected to 7 percent oxygen, dry basis

(c) **Percent reduction in potential hydrogen chloride emissions.** Calculate the percent reduction in potential hydrogen chloride emissions (% P_{HCl}) using equation 3 of this section:

$$\%P_{\text{HCl}} = (E_{i-o}) * (100/E_i) \text{ (Eq. 3)}$$

Where:

$\%P_{\text{HCl}}$ = percent reduction of the potential hydrogen chloride emissions

E_i = hydrogen chloride emission concentration as measured at the air pollution control device inlet, corrected to 7 percent oxygen, dry basis

E_o = hydrogen chloride emission concentration as measured at the air pollution control device outlet, corrected to 7 percent oxygen, dry basis

(d) **Capacity of a municipal waste combustion unit.** For a municipal waste combustion unit that can operate continuously for 24-hour periods, calculate the municipal waste combustion unit capacity based on 24 hours of operation at the maximum charge rate. To determine the maximum charge rate, use one of two methods:

(1) For municipal waste combustion units with a design based on heat input capacity, calculate the maximum charging rate based on the maximum heat input capacity and one of two heating values:

(i) If your municipal waste combustion unit combusts refuse-derived fuel, use a heating value of 12,800 kilojoules per kilogram (5,500 British thermal units per pound).

(ii) If your municipal waste combustion unit combusts municipal solid waste, use a heating value of 10,500 kilojoules per kilogram (4,500 British thermal units per pound).

(2) For municipal waste combustion units with a design not based on heat input capacity, use the maximum designed charging rate.

(e) **Capacity of a batch municipal waste combustion unit.** Calculate the capacity of a batch municipal waste combustion unit as the maximum design amount of municipal solid waste they can charge per batch multiplied by the maximum number of batches they can process in 24 hours. Calculate the maximum number of batches by dividing 24 by the number of hours needed to process one batch. Retain fractional batches in the calculation. For example, if one batch requires 16 hours, the municipal waste combustion unit can combust 24/16, or 1.5 batches, in 24 hours.

(f) **Quarterly carbon usage.** If you use activated carbon to comply with the dioxins/furans or mercury limits, calculate the required quarterly usage of carbon using equation 4 of this section for plant basis or equation 5 of this section for unit basis:

(1) Plant basis.

$$C = \sum_{i=1}^n f_i * h_i \quad (\text{Eq. 4})$$

Where:

C = required quarterly carbon usage for the plant in kilograms (or pounds).

f_i = required carbon feed rate for the municipal waste combustion unit in kilograms (or pounds) per hour. That is the average carbon feed rate during the most recent mercury or dioxins/furans stack tests (whichever has a higher feed rate).

h_i = number of hours the municipal waste combustion unit was in operation during the calendar quarter (hours).

n = number of municipal waste combustion units, i, located at your plant.

(2) Unit basis.

$$C = f * h \quad (\text{Eq. 5})$$

Where:

C = required quarterly carbon usage for the unit in kilograms (or pounds).

f = required carbon feed rate for the municipal waste combustion unit in kilograms (or pounds) per hour. That is the average carbon feed rate during the most recent mercury or dioxins/furans stack tests (whichever has a higher feed rate).

h = number of hours the municipal waste combustion unit was in operation during the calendar quarter (hours).

Definitions

§ 60.1465 What definitions must I know?

Terms used but not defined in this section are defined in the CAA and in [subparts A](#) and [B of this part](#).

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

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 that type can be constructed above or below ground and with or without refractory walls and floor.

Batch municipal waste combustion unit means a municipal waste combustion unit designed so it cannot combust municipal solid waste continuously 24 hours per day because the design does not allow waste to be fed to the unit or ash to be removed during combustion.

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

Calendar year means 365 (or 366 consecutive days for leap years) consecutive days starting on January 1 and ending on December 31.

Chief facility operator means the person in direct charge and control of the operation of a municipal waste combustion unit. That person is responsible for daily onsite supervision, technical direction, management, and overall performance of the municipal waste combustion unit.

Class I units mean small municipal waste combustion units subject to this subpart that are located at municipal waste combustion plants with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste. See the definition in this section of

“municipal waste combustion plant capacity” for specification of which units at a plant site are included in the aggregate capacity calculation.

Class II units mean small municipal waste combustion units subject to this subpart that are located at municipal waste combustion plants with an aggregate plant combustion capacity less than or equal to 250 tons per day of municipal solid waste. See the definition in this section of “municipal waste combustion plant capacity” for specification of which units at a plant site are included in the aggregate capacity calculation.

Clean wood means untreated wood or untreated wood products including clean untreated lumber, tree stumps (whole or chipped), and tree limbs (whole or chipped). Clean wood does not include two items:

- (1) “Yard waste,” which is defined elsewhere in this section.
- (2) Construction, renovation, or demolition wastes (for example, railroad ties and telephone poles) that are exempt from the definition of “municipal solid waste” in this section.

Co-fired combustion unit means a unit that combusts municipal solid waste with nonmunicipal solid waste fuel (for example, coal, industrial process waste). To be considered a co-fired combustion unit, the unit must be subject to a federally enforceable permit that limits it to combusting a fuel feed stream which is 30 percent or less (by weight) municipal solid waste as measured each calendar quarter.

Continuous burning means the continuous, semicontinuous, or batch feeding of municipal solid waste to dispose of the waste, produce energy, or provide heat to the combustion system in preparation for waste disposal or energy production. Continuous burning does not mean the use of municipal solid waste solely to thermally protect the grate or hearth during the startup period when municipal solid waste is not fed to the grate or hearth.

Continuous emission monitoring system means a monitoring system that continuously measures the emissions of a pollutant from a municipal waste combustion unit.

Dioxins/furans mean tetra- through octachlorinated dibenzo-p-dioxins and dibenzofurans.

Eight-hour block average means the average of all hourly emission concentrations or parameter levels when the municipal waste combustion unit operates and combusts municipal solid waste measured over any of three 8-hour periods of time:

- (1) 12:00 midnight to 8:00 a.m.
- (2) 8:00 a.m. to 4:00 p.m.
- (3) 4:00 p.m. to 12:00 midnight.

Federally enforceable means all limits and conditions the Administrator can enforce (including the requirements of [40 CFR parts 60, 61, and 63](#)), requirements in a State's implementation plan, and any permit requirements established under [40 CFR 52.21](#) or under [40 CFR 51.18](#) and [40 CFR 51.24](#).

First calendar half means the period that starts on January 1 and ends on June 30 in any year.

Fluidized bed combustion unit means a unit where municipal waste is combusted in a fluidized bed of material. The fluidized bed material may remain in the primary combustion zone or may be carried out of the primary combustion zone and returned through a recirculation loop.

Four-hour block average or *4-hour block average* means the average of all hourly emission concentrations or parameter levels when the municipal waste combustion unit operates and combusts municipal solid waste measured over any of six 4-hour periods:

- (1) 12:00 midnight to 4:00 a.m.
- (2) 4:00 a.m. to 8:00 a.m.
- (3) 8:00 a.m. to 12:00 noon.
- (4) 12:00 noon to 4:00 p.m.
- (5) 4:00 p.m. to 8:00 p.m.
- (6) 8:00 p.m. to 12:00 midnight.

Mass burn refractory municipal waste combustion unit means a field-erected municipal waste combustion unit that combusts municipal solid waste in a refractory wall furnace. Unless otherwise specified, that includes municipal waste combustion units with a cylindrical rotary refractory wall furnace.

Mass burn rotary waterwall municipal waste combustion unit means a field-erected municipal waste combustion unit that combusts municipal solid waste in a cylindrical rotary waterwall furnace.

Mass burn waterwall municipal waste combustion unit means a field-erected municipal waste combustion unit that combusts municipal solid waste in a waterwall furnace.

Materials separation plan means a plan that identifies a goal and an approach for separating certain components of municipal solid waste for a given service area in order to make the separated materials available for recycling. A materials separation plan may include three items:

- (1) Elements such as dropoff facilities, buy-back or deposit-return incentives, curbside pickup programs, or centralized mechanical separation systems.

(2) Different goals or approaches for different subareas in the service area.

(3) No materials separation activities for certain subareas or, if warranted, the entire service area.

Maximum demonstrated load of a municipal waste combustion unit means the highest 4-hour block arithmetic average municipal waste combustion unit load achieved during 4 consecutive hours in the course of the most recent dioxins/furans stack test that demonstrates compliance with the applicable emission limit for dioxins/furans specified in this subpart.

Maximum demonstrated temperature of the particulate matter control device means the highest 4-hour block arithmetic average flue gas temperature measured at the inlet of the particulate matter control device during 4 consecutive hours in the course of the most recent stack test for dioxins/furans emissions that demonstrates compliance with the limits specified in this subpart.

Medical/infectious waste means any waste meeting the definition of “medical/infectious waste” in [§ 60.51c](#) of subpart E, of this part.

Mixed fuel-fired (pulverized coal/refuse-derived fuel) combustion unit means a combustion unit that combusts coal and refuse-derived fuel simultaneously, in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the unit where it is combusted in suspension. That includes both conventional pulverized coal and micropulverized coal.

Modification or modified municipal waste combustion unit means a municipal waste combustion unit you have changed after June 6, 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 unit (not including the cost of land) updated to current costs.

(2) Any physical change in the municipal waste combustion unit or change in the method of operating it that increases the emission level of any air pollutant for which new source performance standards have been established under section 129 or section 111 of the CAA. Increases in the emission level of any air pollutant are determined when the municipal waste combustion unit operates at 100 percent of its physical load capability and are measured downstream of all air pollution control devices. Load restrictions based on permits or other nonphysical operational restrictions cannot be considered in the determination.

Modular excess-air municipal waste combustion unit means a municipal waste combustion unit that combusts municipal solid waste, is not field-erected, and has multiple combustion chambers, all of which are designed to operate at conditions with combustion air amounts in excess of theoretical air requirements.

Modular starved-air municipal waste combustion unit means a municipal waste combustion unit that combusts municipal solid waste, is not field-erected, and has multiple combustion

chambers in which the primary combustion chamber is designed to operate at substoichiometric conditions.

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).

Municipal waste combustion plant means one or more municipal waste combustion units at the same location as specified under Applicability ([§ 60.1015\(a\)](#) and [\(b\)](#)).

Municipal waste combustion plant capacity means the aggregate municipal waste combustion capacity of all municipal waste combustion units at the plant that are subject to [subparts Ea](#) or [Eb of this part](#), or this subpart.

Municipal waste combustion unit means any setting or equipment that combusts solid, liquid, or gasified municipal solid waste including, but not limited to, field-erected combustion units (with or without heat recovery), modular combustion units (starved-air or excess-air), boilers (for example, steam generating units), furnaces (whether suspension-fired, grate-fired, mass-fired, air curtain incinerators, or fluidized bed-fired), and pyrolysis/combustion units. Two criteria further define municipal waste combustion units:

(1) Municipal waste combustion units do not include pyrolysis or combustion units located at a plastics or rubber recycling unit as specified under Applicability ([§ 60.1020\(h\)](#) and [\(i\)](#)). Municipal waste combustion units also do not include cement kilns that combust municipal solid waste as specified under Applicability ([§ 60.1020\(j\)](#)). Municipal waste combustion units also do not include internal combustion engines, gas turbines, or other combustion devices that combust landfill gases collected by landfill gas collection systems.

(2) The boundaries of a municipal waste combustion unit are defined as follows. The municipal waste combustion unit includes, but is not limited to, the municipal solid waste fuel feed system, grate system, flue gas system, bottom ash system, and the combustion unit water system. The municipal waste combustion unit does not include air pollution control equipment, the stack, water treatment equipment, or the turbine-generator set. The municipal waste combustion unit boundary starts at the municipal solid waste pit or hopper and extends through three areas:

(i) The combustion unit flue gas system, which ends immediately after the heat recovery equipment or, if there is no heat recovery equipment, immediately after the combustion chamber.

(ii) The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. It includes all ash handling systems connected to the bottom ash handling system.

(iii) The combustion unit water system, which starts at the feed water pump and ends at the piping that exits the steam drum or superheater.

Particulate matter means total particulate matter emitted from municipal waste combustion units as measured using EPA Reference Method 5 in [appendix A of this part](#) and the procedures specified in [§ 60.1300](#).

Plastics or rubber recycling unit means an integrated processing unit for which plastics, rubber, or rubber tires are the only feed materials (incidental contaminants may be in the feed materials). The feed materials are processed and marketed to become input feed stock for chemical plants or petroleum refineries. The following three criteria further define a plastics or rubber recycling unit:

(1) Each calendar quarter, the combined weight of the feed stock that a plastics or rubber recycling unit produces must be more than 70 percent of the combined weight of the plastics, rubber, and rubber tires that recycling unit processes.

(2) The plastics, rubber, or rubber tires fed to the recycling unit may originate from separating or diverting plastics, rubber, or rubber tires from municipal or industrial solid waste. The feed materials may include manufacturing scraps, trimmings, and off-specification plastics, rubber, and rubber tire discards.

(3) The plastics, rubber, and rubber tires fed to the recycling unit may contain incidental contaminants (for example, paper labels on plastic bottles or metal rings on plastic bottle caps).

Potential hydrogen chloride emissions means the level of emissions from a municipal waste combustion unit that would occur from combusting municipal solid waste without emission controls for acid gases.

Potential mercury emissions means the level of emissions from a municipal waste combustion unit that would occur from combusting municipal solid waste without controls for mercury emissions.

Potential sulfur dioxide emissions means the level of emissions from a municipal waste combustion unit that would occur from combusting municipal solid waste without emission controls for acid gases.

Pyrolysis/combustion unit means a unit that produces gases, liquids, or solids by heating municipal solid waste. The gases, liquids, or solids produced are combusted and the emissions vented to the atmosphere.

Reconstruction means rebuilding a municipal waste combustion unit and meeting two criteria:

- (1) The reconstruction begins after June 6, 2001.
- (2) The cumulative cost of the construction over the life of the unit exceeds 50 percent of the original cost of building and installing the municipal waste combustion unit (not including land) updated to current costs (current dollars). To determine what systems are within the boundary of the municipal waste combustion unit used to calculate those costs, see the definition in this section of “municipal waste combustion unit.”

Refractory unit or *refractory wall furnace* means a municipal waste combustion unit that has no energy recovery (such as through a waterwall) in the furnace of the municipal waste combustion unit.

Refuse-derived fuel means a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. That 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.

Same location means the same or contiguous properties under common ownership or control, including those separated only by a street, road, highway, or other public right-of-way. Common ownership or control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, subdivision, or any combination thereof. Entities may include a municipality, other governmental unit, or any quasi-governmental authority (for example, a public utility district or regional authority for waste disposal).

Second calendar half means the period that starts on July 1 and ends on December 31 in any year.

Shift supervisor means the person who is in direct charge and control of operating a municipal waste combustion unit and who is responsible for onsite supervision, technical direction, management, and overall performance of the municipal waste combustion unit during an assigned shift.

Spreader stoker, mixed fuel-fired (coal/refuse-derived fuel) combustion unit means a municipal waste combustion unit that combusts coal and refuse-derived fuel simultaneously, in which coal is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate.

Standard conditions when referring to units of measure mean a temperature of 20 °C and a pressure of 101.3 kilopascals.

Startup period means the period when a municipal waste combustion unit begins the continuous combustion of municipal solid waste. It does not include any warmup period during which the municipal waste combustion unit combusts fossil fuel or other solid waste fuel but receives no municipal solid waste.

Stoker (refuse-derived fuel) combustion unit means a steam generating unit that combusts refuse-derived fuel in a semisuspension combusting mode, using air-fed distributors.

Total mass dioxins/furans or total mass means the total mass of tetra-through octachlorinated dibenzo-p-dioxins and dibenzofurans as determined using EPA Reference Method 23 in [appendix A of this part](#) and the procedures specified in [§ 60.1300](#).

Twenty-four hour daily average or 24-hour daily average means either the arithmetic mean or geometric mean (as specified) of all hourly emission concentrations when the municipal waste combustion unit operates and combusts municipal solid waste measured during the 24 hours between 12:00 midnight and the following midnight.

Untreated lumber means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Untreated 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.

Waterwall furnace means a municipal waste combustion unit that has energy (heat) recovery in the furnace (for example, radiant heat transfer section) of the combustion unit.

Yard waste means grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs. They come from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands. Yard waste does not include two items:

- (1) Construction, renovation, and demolition wastes that are exempt from the definition of “municipal solid waste” in this section.
- (2) Clean wood that is exempt from the definition of “municipal solid waste” in this section.

Table 1 to Subpart AAAA of Part 60—Emission Limits for New Small Municipal Waste Combustion Units

For the following pollutants	You must meet the following emission limits ^a	Using the following averaging times	And determine compliance by the following methods
1. Organics			

For the following pollutants	You must meet the following emission limits ^a	Using the following averaging times	And determine compliance by the following methods
Dioxins/Furans (total mass basis)	13 nanograms per dry standard cubic meter	3-run average (minimum run duration is 4 hours)	Stack test.
2. Metals:			
Cadmium	0.020 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test.
Lead	0.20 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test.
Mercury	0.080 milligrams per dry standard cubic meter or 85 percent reduction of potential mercury emissions	3-run average (run duration specified in test method)	Stack test.
Opacity	10 percent	Thirty 6-minute averages	Stack test.
Particulate Matter	24 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test.
3. Acid Gases:			
Hydrogen Chloride	25 parts per million by dry volume or 95 percent reduction of potential hydrogen chloride emissions	3-run average (minimum run duration is 1 hour)	Stack test
Nitrogen Oxides (Class I units) ^b	150 (180 for 1st year of operation) parts per million by dry volume	24-hour daily block arithmetic average concentration	Continuous emission monitoring system.
Nitrogen Oxides (Class II units) ^c	500 parts per million by dry volume	See footnote ^d	See footnote ^d
Sulfur Dioxide	30 parts per million by dry volume or 80 percent reduction of potential sulfur dioxide emissions	24-hour daily block geometric average concentration or percent reduction	Continuous monitoring emission system.
4. Other:			
Fugitive Ash	Visible emissions for no more than 5 percent of hourly observation period	Three 1-hour observation periods	Visible emission test.

^a All emission limits (except for opacity) are measured at 7 percent oxygen.

^b Class I units mean small municipal waste combustion units subject to this subpart that are located at municipal waste combustion plants with an aggregate plant combustion capacity more than 250 tons per day of municipal solid waste. See [§ 60.1465](#) for definitions.

For the following pollutants	You must meet the following emission limits ^a	Using the following averaging times	And determine compliance by the following methods
^c Class II units mean small municipal waste combustion units subject to this subpart that are located at municipal waste combustion plants with an aggregate plant combustion capacity no more than 250 tons per day of municipal solid waste. See § 60.1465 for definitions.			
^d No monitoring, testing, recordkeeping, or reporting is required to demonstrate compliance with the nitrogen oxides limit for Class II units.			

Table 2 to Subpart AAAA of Part 60—Carbon Monoxide Emission Limits for New Small Municipal Waste Combustion Units

For the following municipal waste combustion units	You must meet the following carbon monoxide limits ^a	Using the following averaging times ^b
1. Fluidized-bed	100 parts per million by dry volume	4-hour.
2. Fluidized bed, mixed fuel, (wood/refuse-derived fuel)	200 parts per million by dry volume	24-hour. ^c
3. Mass burn rotary refractory	100 parts per million by dry volume	4-hour.
4. Mass burn rotary waterwall	100 parts per million by dry volume	24-hour.
5. Mass burn waterwall and refractory	100 parts per million by dry volume	4-hour.
6. Mixed fuel-fired (pulverized coal/refuse-derived fuel)	150 parts per million by dry volume	4-hour.
7. Modular starved-air and excess air	50 parts per million by dry volume	4-hour.
8. Spreader stoker, mixed fuel-fired (coal/refuse-derived fuel)	150 parts per million by dry volume	24-hour daily.
9. Stoker, refuse-derived fuel	150 parts per million by dry volume	24-hour daily.
^a All limits (except for opacity) are measured at 7 percent oxygen. Compliance is determined by continuous emission monitoring systems.		
^b Block averages, arithmetic mean. See § 60.1465 for definitions.		
^c 24-hour block average, geometric mean. See § 60.1465 for definitions.		

Table 3 to Subpart AAAA of Part 60—Requirements for Validating Continuous Emission Monitoring Systems (CEMS)

For the following continuous emission monitoring systems	Use the following methods in appendix A of this part to validate pollutant concentration levels	Use the following methods in appendix A of this part to measure oxygen (or carbon dioxide)
1. Nitrogen Oxides (Class I units only) ^a	Method 7, 7A, 7B, 7C, 7D, or 7E	Method 3 or 3A.
2. Sulfur Dioxide	Method 6 or 6C	Method 3 or 3A.
3. Carbon Monoxide	Method 10, 10A, or 10B	Method 3 or 3A.
^a Class I units mean small municipal waste combustion units subject to this subpart that are located at municipal waste combustion plants with an aggregate plant combustion capacity more than 250 tons per day of municipal solid waste. See § 60.1465 for definitions.		

Table 4 to Subpart AAAA of Part 60—Requirements for Continuous Emission Monitoring Systems (CEMS)

For the following pollutants	Use the following span values for your CEMS	Use the following performance specifications in appendix B of this part for your CEMS	If needed to meet minimum data requirements, use the following alternate methods in appendix A of this part to collect data
1. Opacity	100 percent opacity	P.S. 1	Method 9.
2. Nitrogen Oxides (Class I units only) ^a	Control device outlet: 125 percent of the maximum expected hourly potential nitrogen oxides emissions of the municipal waste combustion unit	P.S. 2	Method 7E.
3. Sulfur Dioxide	Inlet to control device: 125 percent of the maximum expected sulfur dioxide emissions of the municipal waste combustion unit. Control device outlet: 50 percent of the maximum expected hourly potential sulfur dioxide	P.S. 2	Method 6C.

For the following pollutants	Use the following span values for your CEMS	Use the following performance specifications in appendix B of this part for your CEMS	If needed to meet minimum data requirements, use the following alternate methods in appendix A of this part to collect data
	emissions of the municipal waste combustion unit		
4. Carbon Monoxide	125 percent of the maximum expected hourly potential carbon with monoxide emissions of the municipal waste combustion unit	P.S. 4A	Method 10 alternative interference trap.
5. Oxygen or Carbon Dioxide	25 percent oxygen or 25 percent carbon dioxide	P.S. 3	Method 3A or 3B.

^a Class I units mean small municipal waste combustion units subject to this subpart that are located at municipal waste combustion plants with an aggregate plant combustion capacity more than 250 tons per day of municipal solid waste. See [§ 60.1465](#) for definitions.

Table 5 to Subpart AAAA of Part 60—Requirements for Stack Tests

To measure the following pollutants	Use the following methods in appendix A of this part to determine the sampling location	Use the methods in appendix A of this part to measure pollutant concentration	Also note the following additional information
1. Organics:			
Dioxins/Furans	Method 1	Method 23 ^a	The minimum sampling time must be 4 hours per test run while the municipal waste combustion unit is operating at full load.
2. Metals:			
Cadmium	Method 1	Method 29 ^a	Compliance testing must be performed while the municipal

To measure the following pollutants	Use the following methods in appendix A of this part to determine the sampling location	Use the methods in appendix A of this part to measure pollutant concentration	Also note the following additional information
			waste combustion unit is operating at full load.
Lead	Method 1	Method 29 ^a	Compliance testing must be performed while the municipal waste combustion unit is operating at full load.
Mercury	Method 1	Method 29 ^a	Compliance testing must be performed while the municipal waste combustion unit is operating at full load.
Opacity	Method 9	Method 9	Use Method 9 to determine compliance with opacity limit. 3-hour observation period (thirty 6-minute averages).
Particulate Matter	Method 1	Method 5 ^a	The minimum sample Matter volume must be 1.0 cubic meters. The probe and filter holder heating systems in the sample train must be set to provide a gas temperature no greater than 160 ±14 °C. The minimum sampling time is 1 hour.
3. Acid Gases: ^b			
Hydrogen Chloride	Method 1	Method 26 or 26A ^a	Test runs must be at least 1 hour long while the municipal waste combustion unit is operating at full load.
4. Other: ^b			
Fugitive Ash	Not applicable	Method 22 (visible emissions)	The three 1-hour observation period must include periods when the facility transfers fugitive ash from the municipal waste combustion unit to the area where the fugitive ash is stored or loaded into containers or trucks.
^a Must simultaneously measure oxygen (or carbon dioxide) using Method 3A or 3B in appendix A of this part .			

<p>To measure the following pollutants</p>	<p>Use the following methods in appendix A of this part to determine the sampling location</p>	<p>Use the methods in appendix A of this part to measure pollutant concentration</p>	<p>Also note the following additional information</p>
<p>^b Use CEMS to test sulfur dioxide, nitrogen oxide, and carbon monoxide. Stack tests are not required except for quality assurance requirements in appendix F of this part.</p>			

Appendix B
40 C.F.R. Part 60 Subpart CCCC

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

Source:[84 FR 15853](#), Apr. 16, 2019, 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 units (CISWIs) and air curtain incinerators (ACIs).

§ 60.2005 When did this subpart become effective?

This subpart became effective on August 7, 2013. Some of the requirements in this subpart apply to planning the CISWI or ACI (*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 or ACI begins operation.

Applicability

§ 60.2010 Does this subpart apply to my incineration unit?

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

- (a) Your incineration unit is a new incineration unit as defined in [§ 60.2015](#);
- (b) Your incineration unit is a CISWI as defined in [§ 60.2265](#), or an ACI as defined in [§ 60.2265](#); and
- (c) Your incineration unit is not exempt under [§ 60.2020](#).

§ 60.2015 What is a new incineration unit?

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

- (1) A CISWI or ACI that commenced construction after June 4, 2010;
- (2) A CISWI or ACI that commenced reconstruction or modification after August 7, 2013; and

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

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

§ 60.2020 What combustion units are exempt from this subpart?

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

(a) ***Pathological waste incineration units.*** Incineration units burning 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste as defined in [§ 60.2265](#) are not subject to this subpart if you meet the two requirements specified in [paragraphs \(a\)\(1\)](#) and [\(2\)](#) of this section:

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

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

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

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

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

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

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

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

(4) You maintain the records specified in [§ 60.2175\(w\)](#).

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

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

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

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

(4) You maintain the records specified in [§ 60.2175\(x\)](#).

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

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

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

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

(j) ***Other solid waste incineration units.*** Incineration units that are subject to [subpart EEEE of this part](#) (Standards of Performance for Other Solid Waste Incineration Units for Which

Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006) or [subpart FFFF of this part](#) (Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units That Commenced Construction On or Before December 9, 2004).

(k) ***Small remote incinerators.*** Incineration units located in the State of Alaska are not subject to this subpart as specified in the Consolidated Appropriations Act of 2024, H.R. 4366, section 432. For small, remote incinerators that met the requirements of [40 CFR 60.2015\(a\)\(3\)](#) as of December 29, 2025, the unit remains subject to this subpart until the unit becomes subject to the requirements of an approved state plan or Federal plan that implements [subpart FFFF of this part](#) (Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units).

[[84 FR 15853](#), Apr. 16, 2019, as amended at [90 FR 27938](#), June 30, 2025]

§ 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 [\(9\)](#) of this section:

(1) Approval of alternatives to the emission limitations in tables 1, 5, 6, 7, and 8 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 [§ 60.2115](#);

(6) The requirements in [§ 60.2100\(b\)\(2\)](#);

(7) Approval of alternative opacity emission limits in [§ 60.2105](#) under [§ 60.11\(e\)\(6\)](#) through [\(8\)](#);

(8) Performance test and data reduction waivers under [§ 60.8\(b\)\(4\)](#) and [\(5\)](#);

(9) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

§ 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; and
- (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. 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 begins operation.

§ 60.2041 What are the requirements for temporary-use incinerators and air curtain incinerators used in disaster recovery?

(a) If your CISWI or air curtain incinerator is used on a temporary basis to combust debris from a disaster or emergency such as a tornado, hurricane, flood, ice storm, high winds, or act of bioterrorism, it is excluded from the requirements of this subpart during the temporary-use period permitted under [paragraphs \(b\)](#) through [\(d\)](#) of this section as long as your CISWI or air curtain incinerator is used in accordance with [paragraph \(a\)](#) of this section. To qualify for this exclusion, the CISWI or air curtain incinerator may only be used to combust debris in an area declared a State of Emergency by a local or state government, or the President, under the authority of the Stafford Act, has declared that an emergency or a major disaster exists in the area. If your CISWI or air curtain incinerator is equipped with a control device, you must continue to run that control device in order to qualify for this exclusion, unless the control device is infeasible to operate as a result of the disaster. Additionally, you must follow the requirements specified in [paragraphs \(b\)](#) through [\(d\)](#) of this section.

(b) If the CISWI or air curtain incinerator is used in accordance with [paragraph \(a\)](#) of this section during a period that begins on the date the unit started operation and lasts 8 weeks or less within the boundaries of the same emergency or disaster declaration area, then it is excluded from the requirements of this subpart. You do not need to notify the Administrator of its use or meet the emission limitations or other requirements of this subpart.

(c) If the CISWI or air curtain incinerator will be used during a period that begins on the date the unit started operation and lasts more than 8 weeks within the boundaries of the same emergency or disaster declaration area, you must notify the Administrator that the temporary-use CISWI or air curtain incinerator will be used for more than 8 weeks and request permission to continue to operate the unit as specified in [paragraphs \(c\)\(1\)](#) and [\(2\)](#) of this section.

(1) The notification must be submitted in writing by the date 8 weeks after you start operation of the temporary-use CISWI or air curtain incinerator within the boundaries of the current emergency or disaster declaration area.

(2) The notification must contain the date the CISWI or air curtain incinerator started operation within the boundaries of the current emergency or disaster declaration area, identification of the disaster or emergency for which the CISWI or air curtain incinerator is being used, a description of the types of materials being burned in the CISWI or air curtain incinerator, a brief description of the size and design of the unit (for example, an air curtain incinerator or a modular starved-air incinerator), the reasons the CISWI or air curtain incinerator must be operated for more than 8 weeks, and the amount of time for which you request permission to operate including the date you expect to cease operation of the unit.

(d) If you submitted the notification containing the information in [paragraph \(c\)\(2\)](#) of this section, by the date specified in [paragraph \(c\)\(1\)](#) of this section, you may continue to operate the CISWI or air curtain incinerator for another 8 weeks, which is a total of 16 weeks from the date the unit started operation within the boundaries of the current emergency or disaster declaration area, so long as control devices continue to run as able. You do not have to meet the emission limitations or other requirements of this subpart during this period.

(1) At the end of 16 weeks from the date the CISWI or air curtain incinerator started operation within the boundaries of the current emergency or disaster declaration area, you must cease operation of the unit or comply with all requirements of this subpart, unless the Administrator has approved in writing your request to continue operation.

(2) If the Administrator has approved in writing your request to continue operation, then you may continue to operate the CISWI or air curtain incinerator within the boundaries of the current emergency or disaster declaration area until the date specified in the approval, and you do not need to comply with any other requirements of this subpart during the approved time period.

[[90 FR 41514](#), Aug. 26, 2025]

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 an incinerator after December 1, 2000.

(b) You must prepare a siting analysis for CISWIs that commenced construction after June 4, 2010, or that commenced reconstruction or modification after August 7, 2013.

(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.

§ 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'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?

- (a) You must submit a waste management plan prior to commencing construction.
- (b) For CISWIs that commence reconstruction or modification after August 7, 2013, you must submit a waste management plan prior to the commencement of modification or reconstruction.

§ 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 can be operated unless a fully trained and qualified CISWI operator is accessible, either at the facility or can be at the facility within 1 hour. The trained and qualified CISWI operator may operate the CISWI directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified CISWI 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; and
 - (xi) Waste management practices.
- (2) An examination designed and administered by the instructor.
- (3) Written material covering the training course topics that may serve as reference material following completion of the course.

§ 60.2075 When must the operator training course be completed?

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

- (a) Six months after your CISWI startup;
- (b) December 3, 2001; and
- (c) The date before an employee assumes responsibility for operating the CISWI or assumes responsibility for supervising the operation of the CISWI.

§ 60.2080 How do I obtain my operator qualification?

- (a) You must obtain operator qualification by completing a training course that satisfies the criteria under [§ 60.2070\(b\)](#).
- (b) Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under [§ 60.2070\(c\)\(2\)](#).

§ 60.2085 How do I maintain my operator qualification?

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

- (a) Update of regulations;
- (b) Incinerator operation, including startup and shutdown procedures, waste charging, and ash handling;
- (c) Inspection and maintenance;
- (d) Prevention and correction of malfunctions or conditions that may lead to malfunction; and
- (e) Discussion of operating problems encountered by attendees.

§ 60.2090 How do I renew my lapsed operator qualification?

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

- (a) For a lapse of less than 3 years, you must complete a standard annual refresher course described in [§ 60.2085](#); and
- (b) For a lapse of 3 years or more, you must repeat the initial qualification requirements in [§ 60.2080\(a\)](#).

§ 60.2095 What site-specific documentation is required?

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

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

- (2) Procedures for receiving, handling, and charging waste;
- (3) Incinerator startup, shutdown, and malfunction procedures;
- (4) Procedures for maintaining proper combustion air supply levels;
- (5) Procedures for operating the incinerator and associated air pollution control systems within the standards established under this subpart;
- (6) Monitoring procedures for demonstrating compliance with the incinerator operating limits;
- (7) Reporting and recordkeeping procedures;
- (8) The waste management plan required under [§§ 60.2055](#) through [60.2065](#);
- (9) Procedures for handling ash; and
- (10) A list of the wastes burned during the performance test.

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

- (1) The initial review of the information listed in [paragraph \(a\)](#) of this section must be conducted within 6 months after the effective date of this subpart or prior to an employee's assumption of responsibilities for operation of the CISWI, whichever date is later; and
- (2) Subsequent annual reviews of the information listed in [paragraph \(a\)](#) of this section must be conducted no later than 12 months following the previous review.

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

- (1) Records showing the names of CISWI operators who have completed review of the information in [§ 60.2095\(a\)](#) as required by [§ 60.2095\(b\)](#), including the date of the initial review and all subsequent annual reviews;
- (2) Records showing the names of the CISWI operators who have completed the operator training requirements under [§ 60.2070](#), met the criteria for qualification under [§ 60.2080](#), and maintained or renewed their qualification under [§ 60.2085](#) or [§ 60.2090](#). Records must include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications; and
- (3) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

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

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

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

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

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

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

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

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

Emission Limitations and Operating Limits

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

(a) You must meet the emission limitations for each CISWI, 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) A CISWI or ACI that commenced construction after November 30, 1999, but no later than June 4, 2010, or that commenced reconstruction or modification on or after June 1, 2001 but no later than August 7, 2013, must continue to meet the emission limits in table 1 of this subpart for units in the incinerator subcategory and [§ 60.2250](#) for ACIs until the units become subject to the requirements of an approved state plan or federal plan that implements [subpart DDDD of this part](#) (Emission Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units).

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

(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 \(ii\)](#) of this section, 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; and

(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 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; and

(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 hydrogen chloride (HCl) emission limitation.

(b) You must meet the operating limits established during the initial performance test 60 days after your CISWI 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 and you do not use a particulate matter (PM) continuous parameter monitoring system (CPMS) for monitoring PM compliance, 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 and you do not use a PM CPMS for monitoring PM compliance, 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 \times 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. For energy recovery units, when your unit operates at lower loads, multiply your sorbent injection rate by the load fraction, as defined in this subpart, to determine the required injection rate (*e.g.*, for 50 percent load, multiply the injection rate operating limit by 0.5).

(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), and the reagent flow rate during the nitrogen oxides performance testing. The operating limits for the selective noncatalytic reduction are calculated as the highest 1-hour average charge rate, lower secondary chamber temperature, and lowest reagent flow rate measured during the most recent performance test demonstrating compliance with the nitrogen oxides emission limitations.

(g) If you use a dry scrubber to comply with the emission limitations, you must measure the injection rate of each sorbent during the performance testing. The operating limit for the injection rate of each sorbent is calculated as the lowest 1-hour average injection rate for each sorbent measured during the most recent performance test demonstrating compliance with the hydrogen chloride emission limitations. For energy recovery units, when your unit operates at lower loads, multiply your sorbent injection rate by the load fraction, as defined in this subpart, to determine the required injection rate (*e.g.*, for 50 percent load, multiply the injection rate operating limit by 0.5).

(h) 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 either a particulate matter CEMS or a particulate matter CPMS, you must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).

(i) If you use a PM CPMS to demonstrate continuing compliance, you must establish your PM CPMS operating limit and determine compliance with it according to [paragraphs \(i\)\(1\) through \(5\)](#) of this section:

(1) Determine your operating limit as the average PM CPMS output value recorded during the performance test or at a PM CPMS output value corresponding to 75 percent of the emission limit if your PM performance test demonstrates compliance below 75 percent of the emission limit. You must verify an existing or establish a new operating limit after each repeated performance test. You must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test:

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

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

(iii) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp output values, or their digital equivalent, from the PM CPMS for the periods corresponding to the compliance test runs (*e.g.*, average all your PM CPMS output values for three corresponding Method 5 or Method 29 test runs).

(2) If the average of your three PM performance test runs are below 75 percent of your PM emissions limit, you must calculate an operating limit by establishing a relationship of PM CPMS signal to PM concentration using the PM CPMS instrument zero, the average PM CPMS output values corresponding to the three compliance test runs, and the average PM concentration from the Method 5 or Method 29 performance test with the procedures in [\(i\)\(1\) through \(5\)](#) of this section:

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

(A) Zero point data for *in-situ* instruments should be obtained by removing the instrument from the stack and monitoring ambient air on a test bench;

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

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

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

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

$$\bar{x} = \frac{1}{n} \sum_{i=1}^n X_1, \bar{y} = \frac{1}{n} \sum_{i=1}^n Y_1 \quad (\text{Eq. 1})$$

Where:

X_1 = the PM CPMS output data points for the three runs constituting the performance test,

Y_1 = the PM concentration value for the three runs constituting the performance test, and

n = the number of data points.

(iii) With your instrument zero expressed in milliamps, or the digital equivalent, your three run average PM CPMS milliamp value, or its digital equivalent, and your three run average PM concentration from your three compliance tests, determine a relationship of mg/dscm per milliamp or digital signal equivalent with equation 2:

$$R = \left(\frac{Y_1}{X_1 - z} \right) \quad (\text{Eq. 2})$$

Where:

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

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

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

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

(iv) Determine your source specific 30-day rolling average operating limit using the mg/dscm per milliamp or digital value from equation 2 in equation 3, below. This sets your operating limit at the PM CPMS output value corresponding to 75 percent of your emission limit:

$$O_l = z + \frac{0.75(L)}{R} \tag{Eq. 3}$$

Where:

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

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

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

R = the relative mg/dscm per milliamp or digital signal output equivalent for your PM CPMS, from equation 2.

(3) If the average of your three PM compliance test runs is at or above 75 percent of your PM emission limit you must determine your operating limit by averaging the PM CPMS milliamp or digital signal output corresponding to your three PM performance test runs that demonstrate compliance with the emission limit using equation 4 and you must submit all compliance test and PM CPMS data according to the reporting requirements in [paragraph \(i\)\(5\)](#) of this section:

$$O_n = \frac{1}{n} \sum_{i=1}^n X_i \tag{Eq. 4}$$

Where:

X_i = the PM CPMS data points for all runs i ,

n = the number of data points, and

O_h = your site specific operating limit, in milliamps or digital signal equivalent.

(4) To determine continuous compliance, you must record the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (*e.g.*, milliamps or digital signal bits, PM concentration, raw data signal) on a 30-day rolling average basis.

(5) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (*e.g.*, beta attenuation), span of the instruments primary analytical range, milliamp or digital signal value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp or digital signals corresponding to each PM compliance test run.

[[85 FR 15853](#), Apr. 16, 2019, as amended at [85 FR 63403](#), Oct. 7, 2020]

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

If you use an air pollution control device other than a wet scrubber, activated carbon injection, selective noncatalytic reduction, fabric filter, an electrostatic precipitator, or a dry scrubber 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 submit the petition at least sixty days before the performance test is scheduled to begin. 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; and

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

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 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 (except when using Method 9 and Method 22).

(f) All pollutant concentrations, except for opacity, must be adjusted to 7 percent oxygen using equation 5 of this section:

$$C_{\text{adj}} = C_{\text{meas}} (20.9-7)/(20.9-\%O_2) \quad (\text{Eq. 5})$$

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

%O₂ = oxygen concentration measured on a dry basis, percent.

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

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

(2) Quantify isomers meeting identification criteria in [Section 11.4.3.4](#) of Method 23, regardless of whether the isomers meet identification criteria in [Section 11.4.3.4.1](#) of Method 23. You must quantify the isomers per [Section 11.4.3.5](#) of Method 23. (Note: You may reanalyze the sample aliquot or split to reduce the number of isomers to meet the identification criteria in [Section 11.4.3.4](#) of Method 23.)

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

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

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

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

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

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

(2) Quantify isomers meeting identification criteria in [Section 11.4.3.4](#) of Method 23, regardless of whether the isomers meet identification [Section 11.4.3.4.1](#) of Method 23. You must quantify the isomers per [Section 11.4.3.5](#) of Method 23. (Note: You may reanalyze the sample aliquot or split to reduce the number of isomers to meet the identification criteria in [Section 11.4.3.4](#) of Method 23.)

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

[[84 FR 15853](#), Apr 16, 2019, as amended at [88 FR 16742](#), Mar. 20, 2023]

§ 60.2130 How are the performance test data used?

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

Initial Compliance Requirements

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

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

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

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

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

(b) If you commence or recommence combusting a solid waste at an existing combustion unit at any commercial or industrial facility, and you conducted a test consistent with the provisions of this subpart while combusting the solid waste within the 6 months preceding the reintroduction of that solid waste in the combustion chamber, you do not need to retest until 6 months from the date you reintroduce that solid waste.

(c) If you commence or recommence combusting a solid waste at an existing combustion unit at any commercial or industrial facility and you have not conducted a performance test consistent with the provisions of this subpart while combusting the solid waste within the 6

months preceding the reintroduction of that solid waste in the combustion chamber, you must conduct a performance test within 60 days from the date you reintroduce that solid waste.

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

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

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

Continuous Compliance Requirements

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

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

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

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

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

(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 (if PM CEMS are elected to demonstrate continuous compliance with the particulate matter emission limits). 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 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 CEMS 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 3-hour block average values to determine compliance (except for baghouse leak detection system alarms) unless a different averaging period is established under [§ 60.2115](#) or, for energy recovery units, where the averaging time for each operating parameter is a 30-day rolling, calculated each hour as the average of the previous 720 operating hours. Operation above the established maximum, below the established minimum, or outside the allowable range of 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 and fuels used to establish subcategory applicability (for energy recovery units) and 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 CEMS or continuous opacity monitoring systems are used) and the pollutants listed in table 6 of this subpart.

(g) You may elect to demonstrate initial and continuous compliance with the carbon monoxide emission limit using a carbon monoxide CEMS, as described in [§ 60.2165\(o\)](#).

(h) Coal and liquid/gas energy recovery units with average annual heat input rates greater than or equal to 250 million British thermal units/hour (MMBtu/hr) may elect to demonstrate initial and continuous compliance with the particulate matter emissions limit using a particulate matter CEMS according to the procedures in [§ 60.2165\(n\)](#) instead of the PM CPMS specified in [§ 60.2145](#). Coal and liquid/gas energy recovery units with annual average heat input rates less than 250 MMBtu/hr, incinerators, and small remote incinerators may also elect to demonstrate initial and continuous compliance using a particulate matter CEMS according to the procedures in [§ 60.2165\(n\)](#) instead of particulate matter testing with EPA Method 5 at [40 CFR part 60, appendix A-3](#) and, if applicable, the continuous opacity monitoring requirements in [paragraph \(i\)](#) of this section.

(i) For energy recovery units with annual average heat input rates greater than or equal to 10 MMBtu/hr and less than 250 MMBtu/hr that do not use a wet scrubber, fabric filter with bag leak detection system, an electrostatic precipitator, particulate matter CEMS, or particulate matter CPMS, you must install, operate, certify and maintain a continuous opacity monitoring system (COMS) according to the procedures in [§ 60.2165\(m\)](#).

(j) For waste-burning kilns, you must conduct an annual performance test for particulate matter, cadmium, lead, carbon monoxide, dioxins/furans and hydrogen chloride as listed in Table 7 of this subpart, unless you choose to demonstrate initial and continuous compliance using CEMS, as allowed in [paragraph \(u\)](#) of this section. If you do not use an acid gas wet

scrubber or dry scrubber, you must determine compliance with the hydrogen chloride emissions limit using a HCl CEMS according to the requirements in [paragraph \(j\)\(1\)](#) of this section. You must determine compliance with the mercury emissions limit using a mercury CEMS or an integrated sorbent trap monitoring system according to [paragraph \(j\)\(2\)](#) of this section. You must determine compliance with nitrogen oxides and sulfur dioxide using CEMS. You must determine continuing compliance with the particulate matter emissions limit using a PM CPMS according to [paragraph \(x\)](#) of this section.

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

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

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

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

(B) Quality assure any data above the span value by proving instrument linearity beyond the span value established in [paragraph \(j\)\(1\)\(i\)](#) of this section using the following procedure. Conduct a weekly “above span linearity” calibration challenge of the monitoring system using a reference gas with a certified value greater than your highest expected hourly concentration or greater than 75% of the highest measured hourly concentration. The “above span” reference gas must meet the requirements of the applicable performance specification and must be introduced to the measurement system

at the probe. Record and report the results of this procedure as you would for a daily calibration. The “above span linearity” challenge is successful if the value measured by the HCl CEMS falls within 10 percent of the certified value of the reference gas. If the value measured by the HCl CEMS during the above span linearity challenge exceeds 10 percent of the certified value of the reference gas, the monitoring system must be evaluated and repaired and a new “above span linearity” challenge met before returning the HCl CEMS to service, or data above span from the HCl CEMS must be subject to the quality assurance procedures established in [\(j\)\(1\)\(ii\)\(D\)](#) of this section. In this manner values measured by the HCl CEMS during the above span linearity challenge exceeding ± 20 percent of the certified value of the reference gas must be normalized using equation 6;

(C) Quality assure any data above the span value established in [paragraph \(j\)\(1\)\(i\)](#) of this section using the following procedure. Any time two consecutive one-hour average measured concentration of HCl exceeds the span value you must, within 24 hours before or after, introduce a higher, “above span” HCl reference gas standard to the HCl CEMS. The “above span” reference gas must meet the requirements of the applicable performance specification and target a concentration level between 50 and 150 percent of the highest expected hourly concentration measured during the period of measurements above span, and must be introduced at the probe. While this target represents a desired concentration range that is not always achievable in practice, it is expected that the intent to meet this range is demonstrated by the value of the reference gas. Expected values may include above span calibrations done before or after the above-span measurement period. Record and report the results of this procedure as you would for a daily calibration. The “above span” calibration is successful if the value measured by the HCl CEMS is within 20 percent of the certified value of the reference gas. If the value measured by the HCl CEMS is not within 20 percent of the certified value of the reference gas, then you must normalize the stack gas values measured above span as described in [paragraph \(j\)\(1\)\(ii\)\(D\)](#) of this section. If the “above span” calibration is conducted during the period when measured emissions are above span and there is a failure to collect the one data point in an hour due to the calibration duration, then you must determine the emissions average for that missed hour as the average of hourly averages for the hour preceding the missed hour and the hour following the missed hour. In an hour where an “above span” calibration is being conducted and one or more data points are collected, the emissions average is represented by the average of all valid data points collected in that hour;

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

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

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

(2) Compliance with the mercury emissions limit must be determined using a mercury CEMS or integrated sorbent trap monitoring system according to the following requirements:

(i) You must operate a mercury CEMS system in accordance with performance specification 12A of [40 CFR part 60, appendix B](#) or an integrated sorbent trap monitoring system in accordance with performance specification 12B of [40 CFR part 60, appendix B](#); these monitoring systems must be quality assured according to procedure 5 of [40 CFR 60, appendix F](#). For the purposes of emissions calculations when using an integrated sorbent trap monitoring system, the mercury concentration determined for each sampling period must be assigned to each hour during the sampling period. If you choose to comply with the production-rate based mercury limit for your waste-burning kiln, you must also monitor hourly clinker production and determine the hourly mercury emissions rate in pounds per million ton of clinker produced. You must demonstrate compliance with the mercury emissions limit using a 30-day rolling average of these 1-hour mercury concentrations or mass emissions rates, including CEMS and integrated sorbent trap monitoring system data during startup and shutdown as defined in this subpart, 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. Integrated sorbent trap monitoring system and CEMS data during startup and shutdown, as defined in this subpart, are not corrected to 7 percent oxygen, and are measured at stack oxygen content;

(ii) Owners or operators using a mercury CEMS or integrated sorbent trap monitoring system to determine mass emission rate 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 specification 6 of [40 CFR part 60, appendix B](#), and conducting an annual relative accuracy test of the continuous emission rate monitoring system according to [section 8.2](#) of performance specification 6; and

(iii) The owner or operator of a waste-burning kiln must demonstrate initial compliance by operating a mercury CEMS or integrated sorbent trap monitoring system while the raw mill of the in-line kiln/raw mill is operating under normal conditions and including at least one period when the raw mill is off.

(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; and

(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](#); and

(vi) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of [§ 60.7\(b\)](#), [\(c\)](#) introductory text, [\(c\)\(1\)](#) and [\(4\)](#), and [\(d\)](#) through [\(g\)](#).

(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 at full scale of no greater than 2 percent;

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

(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 the frequency outlined in your site-specific monitoring plan to ensure pressure measurements are not obstructed (*e.g.*, check for pressure tap plugging 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; and

(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; and

(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 [\(p\)\(1\)](#) and [\(2\)](#) of this section:

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

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

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

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

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

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

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

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

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

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

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

(s) For facilities using a CEMS to demonstrate initial and continuous compliance with the sulfur dioxide emission limit, compliance with the sulfur dioxide emission limit may be

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(1) Demonstrate compliance with the appropriate emission limit(s) using a 30-day rolling average of 1-hour arithmetic average emission concentrations, including CEMS or integrated sorbent trap monitoring systems data during startup and shutdown as defined in this subpart, calculated using equation 19-19 in [section 12.4.1](#) of EPA Reference Method 19 at appendix A-7 of this part. The 1-hour arithmetic averages for CEMS must be calculated using the data points required under [§ 60.13\(e\)\(2\)](#). Except for CEMS or integrated sorbent trap monitoring systems data during startup and shutdown, the 1-hour arithmetic averages used to calculate the 30-day rolling average emission concentrations must be corrected to 7 percent oxygen (dry basis). Integrated sorbent trap monitoring systems or CEMS data during startup and shutdown, as defined in the subpart, are not corrected to 7 percent oxygen, and are measured at stack oxygen content; and

(2) Operate all CEMS and integrated sorbent trap 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 PM, HCl, lead, cadmium, mercury, nitrogen oxides, sulfur dioxide, and dioxin/furans.

(w) For energy recovery units with a design heat input capacity of 100 MMBtu/hr or greater that do not use a carbon monoxide CEMS, you must install, operate, and maintain a oxygen analyzer system as defined in [§ 60.2265](#) according to the procedures in [paragraphs \(w\)\(1\)](#) through [\(4\)](#) of this section:

(1) The oxygen analyzer system must be installed by the initial performance test date specified in [§ 60.2140](#);

(2) You must operate the oxygen trim system within compliance with [paragraph \(w\)\(3\)](#) of this section at all times;

(3) You must maintain the oxygen level such that the 30-day rolling average that is established as the operating limit for oxygen is not below the lowest hourly average oxygen concentration measured during the most recent CO performance test; and

(4) You must calculate and record a 30-day rolling average oxygen concentration using equation 19-19 in [section 12.4.1](#) of EPA Reference Method 19 of appendix A-7 of this part.

(x) For energy recovery units with annual average heat input rates greater than or equal to 250 MMBtu/hr and waste-burning kilns, you must install, calibrate, maintain, and operate a PM CPMS and record the output of the system as specified in [paragraphs \(x\)\(1\)](#) through [\(8\)](#) of this section. For other energy recovery units, you may elect to use PM CPMS operated in accordance with this section. PM CPMS are suitable in lieu of using other CMS for monitoring PM compliance (*e.g.*, bag leak detectors, ESP secondary power, PM scrubber pressure):

(1) Install, calibrate, operate, and maintain your PM CPMS according to the procedures in your approved site-specific monitoring plan developed in accordance with [paragraphs \(1\)](#) and [\(x\)\(1\)\(i\)](#) through [\(iii\)](#) of this section:

(i) The operating principle of the PM CPMS must be based on in-stack or extractive light scatter, light scintillation, beta attenuation, or mass accumulation detection of the exhaust gas or representative sample. The reportable measurement output from the PM CPMS must be expressed as milliamps or the digital signal equivalent;

(ii) The PM CPMS must have a cycle time (*i.e.*, period required to complete sampling, measurement, and reporting for each measurement) no longer than 60 minutes; and

(iii) The PM CPMS must be capable of detecting and responding to particulate matter concentrations increments no greater than 0.5 mg/actual cubic meter.

(2) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, you must adjust the site-specific operating limit

in accordance with the results of the performance test according to the procedures specified in [§ 60.2110](#).

(3) Collect PM CPMS hourly average output data for all energy recovery unit or waste-burning kiln operating hours. Express the PM CPMS output as milliamps.

(4) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CPMS output collected during all energy recovery unit or waste-burning kiln operating hours data (milliamps or their digital equivalent).

(5) You must collect data using the PM CPMS at all times the energy recovery unit or waste-burning kiln is operating and at the intervals specified in [paragraph \(x\)\(1\)\(ii\)](#) of this section, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), and any scheduled maintenance as defined in your site-specific monitoring plan.

(6) You must use all the data collected during all energy recovery unit or waste-burning kiln operating hours in assessing the compliance with your operating limit except:

(i) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or quality control activities conducted during monitoring system malfunctions are not used in calculations (report any such periods in your annual deviation report);

(ii) Any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or quality control activities conducted during out-of-control periods are not used in calculations (report emissions or operating levels and report any such periods in your annual deviation report);

(iii) Any PM CPMS data recorded during periods of CEMS data during startup and shutdown, as defined in this subpart.

(7) You must record and make available upon request results of PM CPMS system performance audits, as well as the dates and duration of periods from when the PM CPMS is out of control until completion of the corrective actions necessary to return the PM CPMS to operation consistent with your site-specific monitoring plan.

(8) For any deviation of the 30-day rolling average PM CPMS average value from the established operating parameter limit, you must:

(i) Within 48 hours of the deviation, visually inspect the air pollution control device;

(ii) If inspection of the air pollution control device identifies the cause of the deviation, take corrective action as soon as possible and return the PM CPMS measurement to within the established value;

(iii) Within 30 days of the deviation or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit. Within 45 days of the deviation, you must re-establish the CPMS operating limit. You are not required to conduct additional testing for any deviations that occur between the time of the original deviation and the PM emissions compliance test required under [paragraph \(x\)](#) of this section; and

(iv) PM CPMS deviations leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a violation of this subpart.

(y) When there is an alkali bypass and/or an in-line coal mill that exhaust emissions through a separate stack(s), the combined emissions are subject to the emission limits applicable to waste-burning kilns. To determine the kiln-specific emission limit for demonstrating compliance, you must:

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

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

Where:

C_{ks} = Kiln stack concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O₂.)

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

C_{ab} = Alkali bypass concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O₂.)

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

C_{cm} = In-line coal mill concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O₂.)

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

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

(3) For purposes of determining the combined emissions from kilns equipped with an alkali bypass or that exhaust kiln gases to a coal mill that exhausts through a separate stack, instead of installing a CEMS or PM CPMS on the alkali bypass stack or in-line coal mill stack, the results of the initial and subsequent performance test can be used to demonstrate compliance with the relevant emissions limit. A performance test must be conducted on an annual basis (no later than 13 calendar months following the previous performance test).

[[84 FR 15853](#), Apr. 16, 2019, as amended at [85 FR 63404](#), Oct. 7, 2020]

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

You must conduct annual performance tests no later than 13 calendar months following the previous performance test.

[[85 FR 63404](#), Oct. 7, 2020]

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

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

§ 60.2155 May I conduct performance testing less often?

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

(1) You may conduct a repeat performance test at any time to establish new values for the operating limits, as specified in [§ 60.2160](#). New operating limits become effective on the date that the performance test report is submitted to the EPA's Central Data Exchange or postmarked, per the requirements of [§ 60.2235\(b\)](#). The Administrator may request a repeat performance test at any time;

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

(3) You can conduct performance tests less often if you meet the following conditions: your performance tests for the pollutant for at least 2 consecutive performance tests demonstrates that the emission level for the pollutant is no greater than the emission level specified in [paragraph \(a\)\(3\)\(i\)](#) or [\(ii\)](#) of this section, as applicable; there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions; and you are not required to conduct a performance test for the pollutant in response to a request

by the Administrator in [paragraph \(a\)\(1\)](#) of this section or a process change in [paragraph \(a\)\(2\)](#) of this section. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test for the pollutant no more than 37 months following the previous performance test for the pollutant. If the emission level for your CISWI continues to meet the emission level specified in [paragraph \(a\)\(3\)\(i\)](#) or [\(ii\)](#) of this section, as applicable, you may choose to conduct performance tests for the pollutant every third year, as long as there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions. Each such performance test must be conducted no more than 37 months after the previous performance test.

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

(ii) For fugitive emissions, visible emissions (of combustion ash from the ash conveying system) for 2 percent of the time during each of the three 1-hour observations periods.

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

(b) [Reserved]

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

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

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

Monitoring

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

(a) If you are using a wet scrubber to comply with the emission limitation under [§ 60.2105](#), you must install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the value of the operating parameters used to determine

compliance with the operating limits listed in table 2 of this subpart. These devices (or methods) must measure and record the values for these operating parameters at the frequencies indicated in table 2 of this subpart at all times except as specified in [§ 60.2170\(a\)](#).

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

(1) 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; and

(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, an electrostatic precipitator, or a dry 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](#).

(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) or the minimum reagent flow rate measured as 3-hour block averages at all times; and

(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 and you do not use a PM CPMS for monitoring PM compliance, 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 or dry scrubber, you must install, calibrate, maintain, and operate a CEMS for monitoring hydrogen chloride emissions discharged to the atmosphere, as specified in [§ 60.2145\(j\)](#), and record the output of the system. You may substitute use of a HCl CEMS for conducting the HCl initial and annual testing with EPA Method 321 at [40 CFR part 63, appendix A](#). For units other than waste-burning kilns not equipped with a wet scrubber or dry scrubber, a facility may substitute use of a hydrogen chloride CEMS for conducting the hydrogen chloride initial and annual performance test. For units equipped with a hydrogen chloride CEMS, you are not required to monitor the minimum hydrogen chloride sorbent flow rate, the minimum scrubber liquor pH, or the monitoring minimum injection rate.

(h) To demonstrate compliance with the particulate matter emissions limit, a facility may substitute use of a particulate matter CEMS for conducting the PM initial and annual performance test. For units equipped with a particulate matter CEMS, you are not required to use other CMS for monitoring PM compliance (*e.g.*, bag leak detectors, ESP secondary power, PM scrubber pressure).

(i) To demonstrate initial and continuous compliance with the dioxin/furan emissions limit, a facility may substitute use of a continuous automated sampling system for the dioxin/furan initial and annual performance tests. 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. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to dioxin/furan from continuous monitors is published in the Federal Register. 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 [\(q\)](#). A facility may substitute

continuous dioxin/furan monitoring for the minimum sorbent flow rate, if activated carbon sorbent injection is used solely for compliance with the dioxin/furan emission limit.

(j) To demonstrate initial and continuous compliance with the mercury emissions limit, a facility may substitute use of a mercury CEMS or an integrated sorbent trap monitoring system for the mercury initial and annual performance test. The owner or operator who elects to continuously measure mercury emissions instead of sampling and testing using EPA Reference Method 29 or 30B at [40 CFR part 60, appendix A-8](#), 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 the mercury CEMS or integrated sorbent trap monitoring system and must comply with performance specification 12A or performance specification 12B, respectively, and quality assurance procedure 5. For the purposes of emissions calculations when using an integrated sorbent trap monitoring system, the mercury concentration determined for each sampling period must be assigned to each hour during the sampling period. Waste-burning kilns must install, calibrate, maintain, and operate a mercury CEMS or an integrated sorbent trap monitoring system as specified in [§ 60.2145\(j\)](#). For units equipped with a mercury CEMS or an integrated sorbent trap monitoring system, you are not required to monitor the minimum sorbent flow rate, if activated carbon sorbent injection is used solely for compliance with the mercury emission limit.

(k) To demonstrate initial and continuous compliance with the nitrogen oxides emissions limit, a facility may substitute use of a CEMS for the nitrogen oxides initial and annual performance test to demonstrate compliance with the nitrogen oxides emissions limits. For units equipped with a nitrogen oxides CEMS, you are not required to monitor the charge rate, secondary chamber temperature, and reagent flow for selective noncatalytic reduction, if applicable:

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

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

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

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

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

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

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

(2) Conduct a performance evaluation of each continuous opacity monitoring system according to the requirements in [§ 60.13](#) and according to PS-1 of [40 CFR part 60, appendix B](#);

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

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

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

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

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

(2) The initial performance evaluation must be completed no later than 180 days after the date of initial startup of the affected facility, as specified under [§ 60.2125](#) or within 180 days

of notification to the Administrator of use of the continuous monitoring system if the owner or operator was previously determining compliance by Method 5 performance tests, whichever is later;

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

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

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

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

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

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

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

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

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

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

(2) Compliance with the carbon monoxide emission limit shall be determined based on the 30-day rolling average of the hourly arithmetic average emission concentrations, including CEMS data during startup and shutdown as defined in this subpart, using CEMS outlet data, as outlined in [§ 60.2145\(u\)](#).

(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.

(q) For energy recovery units with a design heat input capacity of 100 MMBtu/hr or greater that do not use a carbon monoxide CEMS, you must install, operate, and maintain a oxygen analyzer system as defined in [§ 60.2265](#) according to the procedures in [paragraphs \(q\)\(1\) through \(4\)](#) of this section:

(1) The oxygen analyzer system must be installed by the initial performance test date specified in [§ 60.2140](#);

(2) You must operate the oxygen trim system within compliance with [paragraph \(q\)\(3\)](#) of this section at all times;

(3) You must maintain the oxygen level such that the 30-day rolling average that is established as the operating limit for oxygen according to [paragraph \(q\)\(4\)](#) of this section is not below the lowest hourly average oxygen concentration measured during the most recent CO performance test; and

(4) You must calculate and record a 30-day rolling average oxygen concentration using equation 19-19 in [section 12.4.1](#) of EPA Reference Method 19 of appendix A-7 of this part.

(r) For energy recovery units with annual average heat input rates greater than or equal to 250 MMBtu/hr and waste-burning kilns, you must install, calibrate, maintain, and operate a PM CPMS and record the output of the system as specified in [paragraphs \(r\)\(1\) through \(8\)](#) of this section. If you elect to use a particulate matter CEMS as specified in [paragraph \(n\)](#) of this section, you are not required to use a PM CPMS to monitor particulate matter emissions. For other energy recovery units, you may elect to use PM CPMS operated in accordance with this section. PM CPMS are suitable in lieu of using other CMS for monitoring PM compliance (e.g., bag leak detectors, ESP secondary power, PM scrubber pressure):

(1) Install, calibrate, operate, and maintain your PM CPMS according to the procedures in your approved site-specific monitoring plan developed in accordance with [§ 60.2145\(l\)](#) and [paragraphs \(r\)\(1\)\(i\) through \(iii\)](#) of this section:

(i) The operating principle of the PM CPMS must be based on in-stack or extractive light scatter, light scintillation, beta attenuation, or mass accumulation detection of PM in the exhaust gas or representative sample. The reportable measurement output from the PM CPMS must be expressed as milliamps or a digital signal equivalent;

(ii) The PM CPMS must have a cycle time (*i.e.*, period required to complete sampling, measurement, and reporting for each measurement) no longer than 60 minutes; and

(iii) The PM CPMS must be capable of detecting and responding to particulate matter concentration increments no greater than 0.5 mg/actual cubic meter.

(2) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, you must adjust the site-specific operating limit in accordance with the results of the performance test according to the procedures specified in [§ 60.2110](#).

(3) Collect PM CPMS hourly average output data for all energy recovery unit or waste-burning kiln operating hours. Express the PM CPMS output as milliamps or the digital signal equivalent.

(4) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CPMS output collected during all energy recovery unit or waste-burning kiln operating hours data (milliamps or digital bits).

(5) You must collect data using the PM CPMS at all times the energy recovery unit or waste-burning kiln is operating and at the intervals specified in [paragraph \(r\)\(1\)\(ii\)](#) of this section, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), and any scheduled maintenance as defined in your site-specific monitoring plan.

(6) You must use all the data collected during all energy recovery unit or waste-burning kiln operating hours in assessing the compliance with your operating limit except:

(i) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or quality control activities conducted during monitoring system malfunctions are not used in calculations (report any such periods in your annual deviation report);

(ii) Any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or quality control activities conducted during out-of-control periods are not used in calculations (report emissions or operating levels and report any such periods in your annual deviation report); and

(iii) Any PM CPMS data recorded during periods of CEMS data during startup and shutdown, as defined in this subpart.

(7) You must record and make available upon request results of PM CPMS system performance audits, as well as the dates and duration of periods from when the PM CPMS is out of control until completion of the corrective actions necessary to return the PM CPMS to operation consistent with your site-specific monitoring plan.

(8) For any deviation of the 30-day rolling average PM CPMS average value from the established operating parameter limit, you must:

(i) Within 48 hours of the deviation, visually inspect the air pollution control device;

(ii) If inspection of the air pollution control device identifies the cause of the deviation, take corrective action as soon as possible and return the PM CPMS measurement to within the established value;

(iii) Within 30 days of the deviation or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify the operation of the emissions control device(s). Within 45 days of the deviation, you must re-establish the CPMS operating limit. You are not required to conduct additional testing for any deviations that occur between the time of the original deviation and the PM emissions compliance test required under this paragraph; and

(iv) PM CPMS deviations leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a violation of this subpart.

(s) If you use a dry scrubber to comply with the emission limits of this subpart, you must monitor the injection rate of each sorbent and maintain the 3-hour block averages at or above the operating limits established during the hydrogen chloride performance test.

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

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

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

(ii) Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates in tons-mass per hour of the amount of feed to the kiln. The system of measuring feed must be maintained within ± 5 percent accuracy. Calculate your hourly clinker production rate using a kiln-specific feed to clinker ratio based on reconciled clinker production determined for accounting purposes and recorded feed rates. Update this ratio monthly. Note that if this ratio changes at clinker reconciliation, you must use the new

ratio going forward, but you do not have to retroactively change clinker production rates previously estimated.

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

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

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

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

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

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

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

Recordkeeping and Reporting

§ 60.2175 What records must I keep?

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

(a) Calendar date of each record; and

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

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

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

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

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

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

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

(7) If you monitor clinker production in accordance with [§ 60.2165\(t\)](#):

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

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

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

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

(c)-(d) [Reserved]

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

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

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

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

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

(j) For each qualified operator, the phone and/or pager number at which 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 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. If you monitor emissions with a CEMS, you must indicate which data are CEMS data during startup and shutdown:

(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 HCl CEMS outputs;
 - (8) All 1-hour average percent oxygen concentrations; and
 - (9) All 1-hour average PM CPMS readings or particulate matter CEMS outputs;
- (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 combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to [§ 241.3\(b\)\(1\) of this chapter](#), you must keep a record which documents how the secondary material meets each of the legitimacy criteria under [§ 241.3\(d\)\(1\)](#). If you combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to [§ 241.3\(b\)\(4\) of this chapter](#), you must keep records as to how the operations that produced the fuel satisfies the definition of processing in [§ 241.2](#) and each of the legitimacy criteria of [§ 241.3\(d\)\(1\) of this chapter](#). If the fuel received a non-waste determination pursuant to the petition process submitted under [§ 241.3\(c\) of this chapter](#), you must keep a record that documents how the fuel satisfies the requirements of the petition process. For operating units that combust non-hazardous secondary materials as fuel per [§ 241.4](#), you must keep records documenting that the material is a listed non-waste under [§ 241.4\(a\)](#).

(w) Records of the criteria used to establish that the unit qualifies as a small power production facility under section 3(17)(C) of the Federal Power Act ([16 U.S.C. 796\(17\)\(C\)](#)) and that the waste material the unit is proposed to burn is homogeneous.

(x) Records of the criteria used to establish that the unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act ([16 U.S.C. 796\(18\)\(B\)](#)) and that the waste material the unit is proposed to burn is homogeneous.

§ 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](#); and
- (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](#); and
- (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](#); and
- (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 items listed in [paragraphs \(a\)](#) through [\(p\)](#) of this section. If you have a deviation from the operating limits or the emission limitations, you must also submit deviation reports as specified in [§§ 60.2215](#), [60.2220](#), and [60.2225](#):

- (a) Company name and address;
- (b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report;
- (c) Date of report and beginning and ending dates of the reporting period;

- (d) The values for the operating limits established pursuant to [§ 60.2110](#) or [§ 60.2115](#);
- (e) If no deviation from any emission limitation or operating limit that applies to you has been reported, a statement that there was no deviation from the emission limitations or operating limits during the reporting period;
- (f) The highest recorded 3-hour average and the lowest recorded 3-hour average (30-day average for energy recovery units), as applicable, for each operating parameter recorded for the calendar year being reported;
- (g) Information recorded under [§ 60.2175\(b\)\(6\)](#) and [\(c\)](#) through [\(e\)](#) for the calendar year being reported;
- (h) For each performance test conducted during the reporting period, if any performance test is conducted, the process unit(s) tested, the pollutant(s) tested and the date that such performance test was conducted. Submit, following the procedure specified in [§ 60.2235\(b\)\(1\)](#), the performance test report no later than the date that you submit the annual report;
- (i) If you met the requirements of [§ 60.2155\(a\)](#) or [\(b\)](#), and did not conduct a performance test during the reporting period, you must state that you met the requirements of [§ 60.2155\(a\)](#) or [\(b\)](#), and, therefore, you were not required to conduct a performance test during the reporting period;
- (j) Documentation of periods when all qualified CISWI operators were unavailable for more than 8 hours, but less than 2 weeks;
- (k) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and that caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with [§ 60.11\(d\)](#), including actions taken to correct a malfunction;
- (l) For each deviation from an emission or operating limitation that occurs for a CISWI for which you are not using a continuous monitoring system to comply with the emission or operating limitations in this subpart, the annual report must contain the following information:
- (1) The total operating time of the CISWI at which the deviation occurred during the reporting period; and
 - (2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
- (m) If there were periods during which the continuous monitoring system, including the CEMS, was out of control as specified in [paragraph \(o\)](#) of this section, the annual report must contain the following information for each deviation from an emission or operating limitation

occurring for a CISWI for which you are using a continuous monitoring system to comply with the emission and operating limitations in this subpart:

- (1) The date and time that each malfunction started and stopped;
 - (2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks;
 - (3) The date, time, and duration that each continuous monitoring system was out-of-control, including start and end dates and hours and descriptions of corrective actions taken;
 - (4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period;
 - (5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period;
 - (6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes;
 - (7) A summary of the total duration of continuous monitoring system downtime during the reporting period, and the total duration of continuous monitoring system downtime as a percent of the total operating time of the CISWI at which the continuous monitoring system downtime occurred during that reporting period;
 - (8) An identification of each parameter and pollutant that was monitored at the CISWI;
 - (9) A brief description of the CISWI;
 - (10) A brief description of the continuous monitoring system;
 - (11) The date of the latest continuous monitoring system certification or audit; and
 - (12) A description of any changes in continuous monitoring system, processes, or controls since the last reporting period.
- (n) If there were periods during which the continuous monitoring system, including the CEMS, was not out of control as specified in [paragraph \(o\)](#) of this section, a statement that there were not periods during which the continuous monitoring system was out of control during the reporting period.
- (o) A continuous monitoring system is out of control in accordance with the procedure in [40 CFR part 60, appendix F](#) of this part, as if any of the following occur:

(1) The zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard;

(2) The continuous monitoring system fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; and

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

(p) For energy recovery units, include the annual heat input and average annual heat input rate of all fuels being burned in the unit to verify which subcategory of energy recovery unit applies.

[[84 FR 15853](#), Apr. 16, 2019, as amended at [85 FR 63404](#), Oct. 7, 2020]

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

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

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

§ 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 [\(d\)](#) 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; and

(d) A copy of the operating limit monitoring data during each deviation and for any test report that documents the emission levels the process unit(s) tested, the pollutant(s) tested and the date that the performance test was conducted. Submit, following the procedure specified in [§ 60.2235\(b\)\(1\)](#), the performance test report no later than the date that you submit the deviation report.

§ 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; and
- (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; and
- (iii) Request approval from the Administrator to continue operation of the CISWI.

(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, 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 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; and
- (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.

§ 60.2235 In what form can I submit my reports?

(a) Submit initial, annual and deviation reports electronically or in paper format, postmarked on or before the submittal due dates. Beginning on April 16, 2021 or once the reporting form has been available in CEDRI for 1 year, whichever is later, you must submit subsequent reports on or before the submittal dates to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). Use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the CEDRI website (<https://www3.epa.gov/ttn/chief/cedri/index.html>). The date forms become available in CEDRI will be listed on the CEDRI website. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the report is submitted.

(b) Submit results of each performance test and CEMS performance evaluation required by this subpart as follows:

- (1) Within 60 days after the date of completing each performance test (*see* [§ 60.8](#)) required by this subpart, you must submit the results of the performance test following the procedure specified in either [paragraph \(b\)\(1\)\(i\)](#) or [\(b\)\(1\)\(ii\)](#) of this section:
 - (i) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (https://www3.epa.gov/ttn/chief/ert/ert_info.html) at the time of the test, you must submit the results of the performance test to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX (<https://cdx.epa.gov/>)). Performance test data must be submitted in

a file format generated through the use of the EPA's ERT or an alternate electronic file format consistent with the XML schema listed on the EPA's ERT website. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph; and

(ii) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test, you must submit the results of the performance test to the Administrator at the appropriate address listed in [§ 60.4](#).

(2) Within 60 days after the date of completing each continuous emissions monitoring system performance evaluation you must submit the results of the performance evaluation following the procedure specified in either [paragraph \(b\)\(2\)\(i\)](#) or [\(b\)\(2\)\(ii\)](#) of this section:

(i) For performance evaluations of continuous monitoring systems measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT website at the time of the evaluation, you must submit the results of the performance evaluation to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT or an alternate file format consistent with the XML schema listed on the EPA's ERT website. If you claim that some of the performance evaluation information being submitted is CBI, you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic storage media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph; and

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

(c) If you are required to electronically submit a report through the Compliance and Emissions Data Reporting Interface (CEDRI) in the EPA's Central Data Exchange (CDX), and due to a planned or actual outage of either the EPA's CEDRI or CDX systems within the period of time beginning 5 business days prior to the date that the submission is due, you will be or are

precluded from accessing CEDRI or CDX and submitting a required report within the time prescribed, you may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description identifying the date, time and length of the outage; a rationale for attributing the delay in reporting beyond the regulatory deadline to the EPA system outage; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

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

§ 60.2240 Can reporting dates be changed?

If the Administrator agrees, you may change the semiannual or annual reporting dates. See [§ 60.19\(c\)](#) for procedures to seek approval to change your reporting date.

Title V Operating Permits

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

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

Air Curtain Incinerators (ACIs)

§ 60.2245 What is an air curtain incinerator?

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

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

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

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

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

- (a) Maintain opacity to less than or equal to 10 percent opacity (as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values), except as described in [paragraph \(b\)](#) of this section; and
- (b) Maintain opacity to less than or equal to 35 percent opacity (as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values) during the startup period that is within the first 30 minutes of operation.

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

- (a) Use Method 9 of [appendix A of this part](#) to determine compliance with the opacity limitation.
- (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 ACI, submit the three items described in [paragraphs \(a\)\(1\)](#) through [\(3\)](#) of this section:
 - (1) Notification of your intent to construct the ACI;
 - (2) Your planned initial startup date; and
 - (3) Types of materials you plan to burn in your ACI.
- (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.

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.

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.

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.

Air curtain incinerator (ACI) 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 and small remote incinerators: CEMS data collected during the first hours of a CISWI 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 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 energy recovery units: CEMS data collected during the startup or shutdown periods of operation. Startup begins with either the first-ever firing of fuel in a boiler or process heater for the purpose of supplying useful thermal energy (such as steam or heat) for heating, cooling or process purposes, or producing electricity, or the firing of fuel in a boiler or process heater for any purpose after a shutdown event. Startup ends four hours after when the boiler or process heater makes useful thermal energy (such as heat or steam) for heating, cooling, or process purposes, or generates electricity, whichever is earlier. Shutdown begins when the boiler or process heater no longer makes useful thermal energy (such as heat or steam) for heating, cooling, or process purposes and/or generates electricity or when no fuel is being fed to the boiler or process heater, whichever is earlier. Shutdown ends when the boiler or process heater no longer makes useful thermal energy (such as steam or heat) for heating, cooling, or process purposes and/or generates electricity, and no fuel is being combusted in the boiler or process heater; and

(3) For waste-burning kilns: CEMS data collected during the periods of kiln operation that do not include normal operations. Startup means the time from when a shutdown kiln first begins firing fuel until it begins producing clinker. Startup begins when a shutdown kiln turns on the induced draft fan and begins firing fuel in the main burner. Startup ends when feed is being continuously introduced into the kiln for at least 120 minutes or when the feed rate exceeds 60 percent of the kiln design limitation rate, whichever occurs first. Shutdown means the cessation of kiln operation. Shutdown begins when feed to the kiln is halted and ends when continuous kiln rotation ceases.

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. A chemical recovery unit is not an incinerator, a waste-burning kiln, an energy recovery unit or a small, remote incinerator under this subpart. 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; and

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

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

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

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

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

Continuous emission monitoring system (CEMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this subpart, used to sample, condition (if applicable), analyze, and provide a record of emissions.

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

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

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

- (1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation, operating limit, or operator qualification and accessibility requirements; and
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

In-line kiln/raw mill means a system in a Portland Cement production process where a dry kiln system is integrated with the raw mill so that all or a portion of the kiln exhaust gases are used to perform the drying operation of the raw mill, with no auxiliary heat source used. In this system the kiln is capable of operating without the raw mill operating, but the raw mill cannot operate without the kiln gases, and consequently, the raw mill does not generate a separate exhaust gas stream.

Kiln means an oven or furnace, including any associated preheater or precalciner devices, in-line raw mills, in-line coal mills or alkali bypasses 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. Because the alkali bypass, in-line raw mill and in-line coal mill are considered an integral part of the kiln, the kiln emissions limits also apply to the exhaust of the alkali bypass, in-line raw mill and in-line coal mill.

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

(2) Any physical change in the CISWI 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 midnight and the following midnight during which any amount of solid waste is combusted at any time in the CISWI.

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 over its operating range. 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 or draft controller.

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 CISWIs 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).

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 which may increase the emission rate of any air pollutant to which a standard applies;
- (2) An operational change to the CISWI 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 (*e.g.*, replacing an electrostatic precipitator with a fabric filter); and
- (4) An operational change to the air pollution control devices used to comply with the emission limits for the affected CISWI (*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 and meeting two criteria:

- (1) The reconstruction begins on or after August 7, 2013; and
- (2) The cumulative cost of the construction over the life of the incineration unit exceeds 50 percent of the original cost of building and installing the CISWI (not including land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI used to calculate these costs, see the definition of CISWI.

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

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

Responsible official means one of the following:

- (1) For a corporation: A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
 - (ii) The delegation of authority to such representatives is approved in advance by the permitting authority;
- (2) For a partnership or sole proprietorship: A general partner or the proprietor, respectively;
- (3) For a municipality, state, federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (*e.g.*, a Regional Administrator of EPA); or

(4) For affected facilities:

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

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

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

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

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

Solid waste means the term solid waste as defined in [40 CFR 241.2](#).

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

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

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

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

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

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

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

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

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

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

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

- (1) Grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands;
- (2) Construction, renovation, or demolition wastes; and
- (3) Clean lumber.

Table 1 to Subpart CCCC of Part 60—Emission Limitations for Incinerators 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 ¹	Using this averaging time ²	And determining compliance using this method ²
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 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).
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).
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).
Opacity	10 percent	6-minute averages	Performance test (Method 9 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).

For the air pollutant	You must meet this emission limitation ¹	Using this averaging time ²	And determining compliance using this method ²
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).

¹ All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.

² In lieu of performance testing, you may use a CEMS or, for mercury, an integrated sorbent trap monitoring system, to demonstrate initial and continuing compliance with an emissions limit, as long as you comply with the CEMS or integrated sorbent trap monitoring system requirements applicable to the specific pollutant in [§§ 60.2145](#) and [60.2165](#). As prescribed in [§ 60.2145\(u\)](#), if you use a CEMS or an integrated sorbent trap monitoring system to demonstrate compliance with an emissions limit, your averaging time is a 30-day rolling average of 1-hour arithmetic average emission concentrations.

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). ¹
Pressure drop across the wet scrubber or amperage to wet scrubber	Minimum pressure drop or amperage	Continuous	Every 15 minutes	3-hour rolling. ¹
Scrubber liquor flow rate	Minimum flow rate	Continuous	Every 15 minutes	3-hour rolling. ¹
Scrubber liquor pH	Minimum pH	Continuous	Every 15 minutes	3-hour rolling. ¹

¹ 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 Requirements¹

Report	Due date	Contents	Reference
Preconstruction report	Prior to commencing construction	<ul style="list-style-type: none"> • Statement of intent to construct 	§ 60.2190.
		<ul style="list-style-type: none"> • Anticipated date of commencement of construction • Documentation for siting requirements • Waste management plan • Anticipated date of initial startup 	
Startup notification	Prior to initial startup	<ul style="list-style-type: none"> • Type of waste to be burned 	§ 60.2195.
		<ul style="list-style-type: none"> • Maximum design waste burning capacity • Anticipated maximum charge rate 	

Report	Due date	Contents	Reference
		<ul style="list-style-type: none"> • If applicable, the petition for site-specific operating limits 	
Initial test report	No later than 60 days following the initial performance test	<ul style="list-style-type: none"> • Complete test report for the initial performance test • The values for the site-specific operating limits 	§ 60.2200.
		<ul style="list-style-type: none"> • Installation of bag leak detection system for fabric filter 	
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"> • Name and address • Statement and signature by responsible official • Date of report • Values for the operating limits 	§§ 60.2205 and 60.2210.
		<ul style="list-style-type: none"> • Highest recorded 3-hour average and the lowest 3-hour average, as applicable, (or 30-day average, if applicable) for each operating parameter recorded for the calendar year being reported • For each performance test conducted during the reporting period, if any performance test is conducted, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted • 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 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 	

Report	Due date	Contents	Reference
		<p>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</p> <ul style="list-style-type: none"> • Any malfunction, deviation, or continuous monitoring system out of control periods information as specified in § 60.2210(k) through (o) 	
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"> • Dates and times of deviation • Averaged and recorded data for those dates • Duration and causes of each deviation and the corrective actions taken • Copy of operating limit monitoring data and, if any performance test was conducted that documents emission levels, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted 	§ 60.2215 and 60.2220.
		<ul style="list-style-type: none"> • Dates, times and causes for monitor downtime incidents 	
Qualified operator deviation notification	Within 10 days of deviation	<ul style="list-style-type: none"> • Statement of cause of deviation • Description of efforts to have an accessible qualified operator 	§ 60.2225(a)(1).
		<ul style="list-style-type: none"> • The date a qualified operator will be accessible 	
Qualified operator deviation status report	Every 4 weeks following deviation	<ul style="list-style-type: none"> • Description of efforts to have an accessible qualified operator 	§ 60.2225(a)(2).
		<ul style="list-style-type: none"> • The date a qualified operator will be accessible • Request for approval to continue operation 	
Qualified operator deviation	Prior to resuming operation	<ul style="list-style-type: none"> • Notification that you are resuming operation 	§ 60.2225(b).

Report	Due date	Contents	Reference
notification of resumed operation			

¹ This table is only a summary, see the referenced sections of the rule for the complete requirements.

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 ¹	Using this averaging time ²	And determining compliance using this method ²
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	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	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).
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 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).

For the air pollutant	You must meet this emission limitation ¹	Using this averaging time ²	And determining compliance using this method ²
Lead	0.015 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 of appendix A-8 at 40 CFR part 60). Use ICPMS for the analytical finish.
Mercury	0.00084 milligrams per dry standard cubic meter	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). ³
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).
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).

¹ 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.

² In lieu of performance testing, you may use a CEMS or, for mercury, an integrated sorbent trap monitoring system to demonstrate initial and continuing compliance with an emissions limit, as long as you comply with the CEMS or integrated sorbent trap monitoring system requirements applicable to the specific pollutant in [§§ 60.2145](#) and [60.2165](#). As prescribed in [§ 60.2145\(u\)](#), if you use a CEMS or an integrated sorbent trap monitoring system to demonstrate compliance with an emissions limit, your averaging time is a 30-day rolling average of 1-hour arithmetic average emission concentrations.

³ Incorporated by reference, see [§ 60.17](#).

Table 6 to Subpart CCCC of Part 60—Emission Limitations for Energy Recovery Units That Commenced Construction After June 4, 2010, or That Commenced Reconstruction or Modification After August 7, 2013

For the air pollutant	You must meet this emission limitation ¹		Using this averaging time ²	And determining compliance using this method ²
	Liquid/gas	Solids		
Cadmium	0.023 milligrams per dry standard cubic meter	Biomass—0.0014 milligrams per dry standard cubic meter. Coal—0.0017 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 4 dry standard cubic meters per run)	Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish.
Carbon monoxide	35 parts per million dry volume	Biomass—240 parts per million dry volume. Coal—95 parts per million dry volume	3-run average (1 hour minimum sample time per run)	Performance test (Method 10 at 40 CFR part 60, appendix A-4).
Dioxin/furans (Total Mass Basis)	No Total Mass Basis limit, must meet the toxic equivalency basis limit below	Biomass—0.52 nanograms per dry standard cubic meter. Coal—5.1 nanograms per dry standard cubic meter	3-run average (collect a minimum volume of 4 dry standard cubic meters)	Performance test (Method 23 at 40 CFR part 60, appendix A-7).
Dioxins/furans (toxic equivalency basis)	0.093 nanograms per dry standard cubic meter	Biomass—0.076 nanograms per dry standard cubic meter. ³ Coal—0.075 nanograms per dry standard cubic meter	3-run average (collect a minimum volume of 4 dry standard cubic meters per run)	Performance test (Method 23 of appendix A-7 of this part).
Fugitive ash	Visible emissions for no more than 5 percent of the hourly observation period	Three 1-hour observation periods	Visible emission test (Method 22 at 40 CFR part 60, appendix A-7)	Fugitive ash.
Hydrogen chloride	14 parts per million dry volume	Biomass—0.20 parts per million dry volume. Coal—58 parts per million dry volume	3-run average (For Method 26, collect a minimum volume of 360 liters per run. For Method 26A, collect a minimum volume of 3 dry	Performance test (Method 26 or 26A at 40 CFR part 60, appendix A-8).

For the air pollutant	You must meet this emission limitation ¹		Using this averaging time ²	And determining compliance using this method ²
	Liquid/gas	Solids		
			standard cubic meters per run)	
Lead	0.096 milligrams per dry standard cubic meter	Biomass—0.014 milligrams per dry standard cubic meter. Coal—0.057 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 4 dry standard cubic meters per run)	Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish.
Mercury	0.00056 milligrams per dry standard cubic meter	Biomass—0.0022 milligrams per dry standard cubic meter. Coal—0.013 milligrams per dry standard cubic meter	3-run average (collect enough volume to meet an in-stack detection limit data quality objective of 0.03 ug/dscm)	Performance test (Method 29 or 30B at 40 CFR part 60, appendix A-8) or ASTM D6784-02 (Reapproved 2008). ³
Nitrogen oxides	76 parts per million dry volume	Biomass—290 parts per million dry volume. Coal—460 parts per million dry volume	3-run average (for Method 7E, 1 hour minimum sample time per run)	Performance test (Method 7 or 7E at 40 CFR part 60, appendix A-4).
Particulate matter (filterable)	110 milligrams per dry standard cubic meter	Biomass—5.1 milligrams per dry standard cubic meter. Coal—130 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 1 dry standard cubic meter per run)	Performance test (Method 5 or 29 at 40 CFR part 60, appendix A-3 or appendix A-8).
Sulfur dioxide	720 parts per million dry volume	Biomass—7.3 parts per million dry volume. Coal—850 parts per million dry volume	3-run average (for Method 6, collect a minimum of 60 liters, for Method 6C, 1 hour minimum sample time per run)	Performance test (Method 6 or 6C at 40 CFR part 60, appendix A-4).

¹ 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.

² In lieu of performance testing, you may use a CEMS or, for mercury, an integrated sorbent trap monitoring system to demonstrate initial and continuing compliance with an emissions limit, as long as you comply with the CEMS or integrated sorbent trap monitoring system

For the air pollutant	You must meet this emission limitation ¹		Using this averaging time ²	And determining compliance using this method ²
	Liquid/gas	Solids		
<p>requirements applicable to the specific pollutant in §§ 60.2145 and 60.2165. As prescribed in § 60.2145(u), if you use a CEMS or an integrated sorbent trap monitoring system to demonstrate compliance with an emissions limit, your averaging time is a 30-day rolling average of 1-hour arithmetic average emission concentrations.</p> <p>³ Incorporated by reference, see § 60.17.</p>				

[85 FR 63404, Oct. 7, 2020]

Table 7 to Subpart CCCC of Part 60—Emission Limitations for Waste-Burning Kilns That Commenced Construction After June 4, 2010, or Reconstruction or Modification After August 7, 2013

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

For the air pollutant	You must meet this emission limitation ¹	Using this averaging time ²	And determining compliance using this method ^{2,3}
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 is being used	If a wet scrubber or dry scrubber is used, performance test (Method 321 at 40 CFR part 63, appendix A). If a wet scrubber or dry scrubber is not used, HCl CEMS as specified in § 60.2145(j) .
Lead	0.014 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	0.0037 milligrams per dry standard cubic meter. <i>Or</i> 21 pounds/million tons of clinker ³	30-day rolling average	Mercury CEMS or integrated sorbent trap monitoring system (performance specification 12A or 12B, respectively, of appendix B and procedure 5 of appendix F of this part), as specified in § 60.2145(j) .
Nitrogen oxides	200 parts per million dry volume	30-day rolling average	Nitrogen oxides CEMS (performance specification 2 of appendix B and procedure 1 of appendix F of this part).
Particulate matter (filterable)	4.9 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 2 dry standard cubic meters)	Performance test (Method 5 or 29 at 40 CFR part 60, appendix A-3 or appendix-8).
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).

¹ All emission limitations are measured at 7 percent oxygen (except for CEMS and integrated sorbent trap monitoring system data during startup and shutdown), dry basis at standard conditions. For dioxins/furans, you must meet either the Total Mass Basis limit or the toxic equivalency basis limit.

² In lieu of performance testing, you may use a CEMS or, for mercury, an integrated sorbent trap monitoring system, to demonstrate initial and continuing compliance with an emissions limit, as long as you comply with the CEMS or integrated sorbent trap monitoring system

For the air pollutant	You must meet this emission limitation ¹	Using this averaging time ²	And determining compliance using this method ^{2, 3}
requirements applicable to the specific pollutant in §§ 60.2145 and 60.2165. As prescribed in § 60.2145(u), if you use a CEMS or integrated sorbent trap monitoring system to demonstrate compliance with an emissions limit, your averaging time is a 30-day rolling average of 1-hour arithmetic average emission concentrations.			
³ Alkali bypass and in-line coal mill stacks are subject to performance testing only, as specified in § 60.2145(y)(3). They are not subject to the CEMS, integrated sorbent trap monitoring system, or CPMS requirements that otherwise may apply to the main kiln exhaust.			

[85 FR 63405, Oct. 7, 2020]

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 ¹	Using this averaging time ²	And determining compliance using this method ²
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	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	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	Three 1-hour observation periods	Visible emissions test (Method 22 at 40 CFR part 60, appendix A-7).

For the air pollutant	You must meet this emission limitation ¹	Using this averaging time ²	And determining compliance using this method ²
	observation period		
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) ² , 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). ³
Nitrogen oxides	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).

¹ 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.

² In lieu of performance testing, you may use a CEMS or, for mercury, an integrated sorbent trap monitoring system to demonstrate initial and continuing compliance with an emissions limit, as long as you comply with the CEMS or integrated sorbent trap monitoring system requirements applicable to the specific pollutant in [§§ 60.2145](#) and [60.2165](#). As prescribed in [§ 60.2145\(u\)](#), if you use a CEMS or an integrated sorbent trap monitoring system to demonstrate

For the air pollutant	You must meet this emission limitation ¹	Using this averaging time ²	And determining compliance using this method ²
<p>compliance with an emissions limit, your averaging time is a 30-day rolling average of 1-hour arithmetic average emission concentrations.</p>			
<p>³ Incorporated by reference, see § 60.17.</p>			

Appendix C
40 C.F.R. Part 60 Subpart EEEE

Subpart EEEE—Standards of Performance for Other Solid Waste Incineration Units

Source: [70 FR 74892](#), Dec. 16, 2005, unless otherwise noted.

Introduction

§ 60.2880 What does this subpart do?

This subpart establishes new source performance standards for other solid waste incineration (OSWI) units. Other solid waste incineration units are very small municipal waste combustion units and institutional waste incineration units.

§ 60.2881 When does this subpart become effective?

This subpart takes effect December 29, 2025. Some of the requirements in this subpart apply to planning the incineration unit and must be completed even before construction is initiated on the unit (*i.e.*, the preconstruction requirements in [§§ 60.2894](#) and [60.2895](#)). Other requirements such as the emission limitations and operating limits apply when the unit begins operation.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27939](#), June 30, 2025]

Applicability

§ 60.2885 Does this subpart apply to my incineration unit?

- (a) Your incineration unit is a new incineration unit as defined in [§ 60.2886](#), except as specified in [paragraph \(d\)](#) of this section.
- (b) Your incineration unit is an OSWI unit as defined in [§ 60.2977](#) or an air curtain incinerator subject to this subpart as described in [§ 60.2888](#). Other solid waste incineration units are very small municipal waste combustion units and institutional waste incineration units as defined in [§ 60.2977](#).
- (c) Your incineration unit is not excluded under [§ 60.2887](#).
- (d) This subpart does not apply to your incineration unit if it is a rudimentary combustion device as defined in [§ 60.2977](#).

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27939](#), June 30, 2025]

§ 60.2886 What is a new incineration unit?

(a) A new incineration unit is an incineration unit subject to this subpart that meets any of the criteria specified in [paragraphs \(a\)\(1\) or \(2\)](#) of this section, except as specified in [paragraph \(a\)\(3\)](#) of this section.

(1) Commenced construction after August 31, 2020.

(2) Commenced reconstruction or modification on or after December 29, 2025.

(3) If your incineration unit is a very small municipal waste combustion unit or institutional waste incineration unit and commenced construction, reconstruction, or modification on or before August 31, 2020, or reconstruction or modification on or before December 29, 2025, and you must meet one of the following:

(i) If your incineration unit commenced construction after December 9, 2004, or commenced reconstruction or modification after June 16, 2006, and met the applicability of [paragraph \(a\)\(1\) or \(a\)\(2\)](#) of this section before December 29, 2025, your unit is considered a new incineration unit and remains subject to the emission limitations of table 1 and applicable requirements of this subpart until the unit becomes subject to the requirements of an approved state plan or federal plan that implements [subpart FFFF of this part](#) (Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units), except as provided in [paragraph \(a\)\(3\)\(iii\)](#) of this section.

(ii) If your incineration unit commenced construction on or before December 9, 2004, or commenced reconstruction or modification on or before June 16, 2006, and did not meet the applicability of [paragraph \(a\)\(1\) or \(a\)\(2\)](#) of this section as of December 29, 2025, then your unit is considered an existing incineration unit and is subject to the requirements of an approved state plan or federal plan that implements [subpart FFFF of this part](#) (Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units), except as provided in [paragraph \(a\)\(3\)\(iii\)](#) of this section.

(iii) If you met the applicability of [§ 60.2015\(a\)\(3\)](#) or [§ 40 CFR 60.2550\(a\)](#) as of December 29, 2025, then your unit is considered a commercial and industrial solid waste incineration unit and remains subject to the applicable requirements, until the unit becomes subject to the requirements of an approved state plan or federal plan that implements [subpart FFFF of this part](#) (Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units).

(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 FFFF of this part](#). Such changes do not qualify as reconstruction or modification under this subpart.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27939](#), June 30, 2025]

§ 60.2887 What combustion units are excluded from this subpart?

This subpart excludes the types of units described in [paragraphs \(a\)](#) through [\(q\)](#) of this section, as long as you meet the requirements of this section.

(a) **Cement kilns.** Your unit is excluded if it is regulated under [subpart LLL of part 63 of this chapter](#) (National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry).

(b) **Co-fired combustors.** Your unit, that would otherwise be considered a very small municipal waste combustion unit, is excluded if it meets the five requirements specified in [paragraphs \(b\)\(1\)](#) through [\(5\)](#) of this section.

(1) The unit has a federally enforceable permit limiting the combustion of municipal solid waste to 30 percent of the total fuel input by weight.

(2) You notify the Administrator that the unit qualifies for the exclusion.

(3) You provide the Administrator with a copy of the federally enforceable permit.

(4) You record the weights, each calendar quarter, of municipal solid waste and of all other fuels combusted.

(5) You keep each report for 5 years. These records must be kept on site for at least 2 years. You may keep the records off site for the remaining 3 years.

(c) **Cogeneration facilities.** Your unit is excluded if it meets the three requirements specified in [paragraphs \(c\)\(1\)](#) 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.

(d) **Commercial and industrial solid waste incineration units.** Your unit is excluded if it is regulated under [subparts CCCC](#) or [DDDD of this part](#) and is required to meet the emission limitations established in those subparts.

(e) **Hazardous waste combustion units.** Your unit is excluded if it meets either of the two criteria specified in [paragraph \(e\)\(1\)](#) or [\(2\)](#) of this section.

(1) You are required to get a permit for your unit under section 3005 of the Solid Waste Disposal Act.

(2) Your unit is regulated under [40 CFR part 63, subpart EEE](#) (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors).

(f) **Hospital/medical/infectious waste incinerators.** Your unit is excluded if it is regulated under [subparts Ce](#) or [Ec of this part](#) (New Source Performance Standards and Emission Guidelines for Hospital/Medical/Infectious Waste Incinerators).

(g) **Incinerators and air curtain incinerators in isolated areas of Alaska.** Your incineration unit is excluded if it is used at a solid waste disposal site in Alaska that is classified as a Class II or Class III municipal solid waste landfill, as defined in [§ 60.2977](#).

(h) **Rural institutional waste incinerators.** Your incineration unit is excluded if it is an institutional waste incineration unit, as defined in [§ 60.2977](#), and the application for exclusion described in [paragraphs \(h\)\(1\)](#) and [\(2\)](#) of this section has been approved by the Administrator.

(1) Prior to initial startup, an application and supporting documentation demonstrating that the institutional waste incineration unit meets the two requirements specified in [paragraphs \(h\)\(1\)\(i\)](#) and [\(ii\)](#) of this section must be submitted to and approved by the Administrator.

(i) The unit is located more than 50 miles from the boundary of the nearest Metropolitan Statistical Area,

(ii) Alternative disposal options are not available or are economically infeasible.

(2) The application described in [paragraph \(h\)\(1\)](#) of this section must be revised and resubmitted to the Administrator for approval every 5 years following the initial approval of the exclusion for your unit.

(3) If you re-applied for an exclusion pursuant to [paragraph \(h\)\(2\)](#) of this section and were denied exclusion by the Administrator, you have 3 years from the expiration date of the current exclusion to comply with the emission limits and all other applicable requirements of this subpart.

(i) **Institutional boilers and process heaters.** Your unit is excluded if it is regulated under [40 CFR part 63, subpart DDDDD](#) (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters).

(j) **Laboratory Analysis Units.** Your unit is excluded if it burns samples of materials only for the purpose of chemical or physical analysis.

(k) **Materials recovery units.** Your unit is excluded if it combusts waste for the primary purpose of recovering metals. Examples include primary and secondary smelters.

(l) ***Pathological waste incineration units.*** Your institutional waste incineration unit or very small municipal waste combustion unit is excluded from this subpart if it burns 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 [§ 60.2977](#) and you notify the Administrator that the unit meets these criteria.

(m) ***Small or large municipal waste combustion units.*** Your unit is excluded if it is regulated under subparts AAAA, BBBB, Ea, Eb, or Cb, of this part and is required to meet the emission limitations established in those subparts.

(n) ***Small power production facilities.*** Your unit is excluded if it meets the three requirements specified in [paragraphs \(n\)\(1\)](#) 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.

(o) ***Temporary-use incinerators and air curtain incinerators used in disaster recovery.*** Your incineration unit is excluded if it is used on a temporary basis to combust debris from a disaster or emergency such as a tornado, hurricane, flood, ice storm, high winds, or act of bioterrorism and you comply with the requirements in [§ 60.2969](#).

(p) ***Units that combust contraband or prohibited goods.*** Your incineration unit is excluded if the unit is owned or operated by a government agency such as police, customs, agricultural inspection, or a similar agency to destroy only illegal or prohibited goods such as illegal drugs, or agricultural food products that can not be transported into the country or across State lines to prevent biocontamination. The exclusion does not apply to items either confiscated or incinerated by private, industrial, or commercial entities.

(q) ***Incinerators used for national security.*** Your incineration unit is excluded if it meets the requirements specified in either [paragraph \(q\)\(1\)](#) or [\(2\)](#) of this section.

(1) The incineration unit is used solely during military training field exercises to destroy national security materials integral to the field exercises.

(2) The incineration unit is used solely to incinerate national security materials, its use is necessary to safeguard national security, you follow the exclusion request requirements in [paragraphs \(q\)\(2\)\(i\)](#) and [\(ii\)](#) of this section, and the Administrator has approved your request for exclusion.

(i) The request for exclusion and supporting documentation must demonstrate both that the incineration unit is used solely to destroy national security materials and that a reliable alternative to incineration that ensures acceptable destruction of national security materials is unavailable, on either a permanent or temporary basis.

(ii) The request for exclusion must be submitted to and approved by the Administrator prior to initial startup.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27939](#), June 30, 2025]

§ 60.2888 Are air curtain incinerators regulated under this subpart?

(a) Air curtain incinerators that burn less than 35 tons per day of municipal solid waste or air curtain incinerators located at institutional facilities burning any amount of institutional waste generated at that facility are incineration units subject to all requirements of this subpart, including the emission limitations specified in tables 1, 1a, and 1b to this subpart.

(b) Air curtain incinerators that burn less than 35 tons per day and burn only the materials listed in [paragraphs \(b\)\(1\) through \(4\)](#) of this section collected from the general public and from residential, commercial, institutional, and industrial sources; or, air curtain incinerators located at institutional facilities that burn only the materials listed in [paragraphs \(b\)\(1\) through \(4\)](#) of this section generated at that facility, are required to meet only the requirements in [§§ 60.2970 through 60.2973](#) and are exempt from all other requirements of this subpart.

(1) 100 percent wood waste.

(2) 100 percent clean lumber.

(3) 100 percent yard waste.

(4) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27939](#), June 30, 2025]

§ 60.2889 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 authority. If the EPA has delegated authority to your state, local, or Tribal authority, then that agency (as well as the 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 authority.

(b) In delegating implementation and enforcement authority of this subpart to a state, local, or Tribal authority, the authorities listed in [paragraphs \(b\)\(1\) through \(9\)](#) of this section are retained by EPA and are not transferred to the state, local, or Tribal authority.

(1) The authority to approve alternatives to the emission limitations in tables 1, 1a, and 1b to this subpart and operating limits established under [§ 60.2916](#) and table 2 to this subpart.

(2) The authority to approve petitions for specific operating limits in accordance with the requirements in [§ 60.2917](#).

(3) The authority of the Administrator to receive and grant petitions under [§ 60.8\(b\)\(3\)](#) to approve major alternatives to test methods in [§ 60.2922](#).

(4) The authority to approve major alternatives to monitoring in [§§ 60.2939 through 60.2945](#).

(5) The authority to approve major alternatives to recordkeeping and reporting in [§§ 60.2949 through 60.2962](#).

(6) The authority to receive the required notices and to approve continued operation in connection with the status report requirements in [§ 60.2911\(c\)\(2\)](#).

(7) The authority of the Administrator to receive and grant petitions under [§ 60.11\(e\)\(6\)](#) through [\(8\)](#) to adjust opacity standards and establish opacity standards in accordance with alternative opacity emission limits in [§ 60.2915](#) and [§§ 60.2971 through 60.2973](#).

(8) The authority of the Administrator under [§ 60.8\(b\)\(4\)](#) to waive performance test requirements and [§ 60.8\(b\)\(5\)](#) to approve shorter sampling times or smaller sample volumes.

(9) The authority to approve an alternative to any electronic reporting to the EPA required by this subpart.

[\[90 FR 27939, June 30, 2025\]](#)

§ 60.2890 How are these new source performance standards structured?

These new source performance standards contain 11 major components, as follows:

- (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.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27940](#), June 30, 2025]

§ 60.2891 Do all 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, reconstruction, or modification of the OSWI 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 OSWI unit begins operation.

Preconstruction Siting Analysis

§ 60.2894 Who must prepare a siting analysis?

You must prepare a siting analysis if you commence construction after August 31, 2020, or if you commence reconstruction or modification on or after December 29, 2025.

[[90 FR 27940](#), June 30, 2025]

§ 60.2895 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, you may consider costs, energy impacts, non-air environmental impacts, or any other factors related to the practicability of the alternatives.
- (b) Analyses of your OSWI 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 [§ 60.2952\(c\)](#) prior to commencing construction, reconstruction, or modification.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27940](#), June 30, 2025]

Waste Management Plan

§ 60.2899 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.

§ 60.2900 When must I submit my waste management plan?

You must submit a waste management plan prior to commencing construction, reconstruction, or modification.

§ 60.2901 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

§ 60.2905 What are the operator training and qualification requirements?

(a) No OSWI unit can be operated unless a fully trained and qualified OSWI unit operator is accessible, either at the facility or can be at the facility within 1 hour. The trained and qualified OSWI unit operator may operate the OSWI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified OSWI unit operators are temporarily not accessible, you must follow the procedures in [§ 60.2911](#).

(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 thirteen subjects listed in [paragraphs \(c\)\(1\)\(i\)](#) through [\(xiii\)](#) 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, including good combustion practices and waste characterization procedures.

(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) Methods to monitor pollutants (including monitoring of incinerator and control device operating parameters) and monitoring equipment calibration procedures, where applicable.

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

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

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

(xi) Pollution prevention.

(xii) Waste management practices.

(xiii) Recordkeeping requirements.

(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.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27940](#), June 30, 2025]

§ 60.2906 When must the operator training course be completed?

The operator training course must be completed by the latest of the dates specified in [paragraphs \(a\)](#) through [\(d\)](#) of this section.

- (a) Six months after your OSWI unit startup date.
- (b) December 29, 2025.
- (c) The date before an employee assumes responsibility for operating the OSWI unit or assumes responsibility for supervising the operation of the OSWI unit.

[[90 FR 27940](#), June 30, 2025]

§ 60.2907 How do I obtain my operator qualification?

- (a) You must obtain operator qualification by completing a training course that satisfies the criteria under [§ 60.2905\(c\)](#).
- (b) Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under [§ 60.2905\(c\)\(2\)](#).

§ 60.2908 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.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27940](#), June 30, 2025]

§ 60.2909 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 [§ 60.2908](#).

(b) For a lapse of 3 years or more, you must repeat the initial qualification requirements in [§ 60.2907\(a\)](#).

§ 60.2910 What site-specific documentation is required?

(a) Documentation must be available at the facility and readily accessible for all OSWI 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 good combustion practices, including 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 operating limits established under this subpart.

(7) Reporting and recordkeeping procedures.

(8) The waste management plan required under [§§ 60.2899](#) through [60.2901](#).

(9) Procedures for handling ash.

(10) Procedures for establishing initial and continuous compliance, including but not limited to, procedures to determine waste characterization.

(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 by December 18, 2006 or prior to an employee's assumption of responsibilities for operation of the OSWI 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 OSWI unit operators who have completed review of the information in [paragraph \(a\)](#) of this section as required by [paragraph \(b\)](#) of this section, including the date of the initial review and all subsequent annual reviews.

(2) Records showing the names of the OSWI unit operators who have completed the operator training requirements under [§ 60.2905](#), met the criteria for qualification under [§ 60.2907](#), and maintained or renewed their qualification under [§ 60.2908](#) or [§ 60.2909](#). 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.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27940](#), June 30, 2025]

§ 60.2911 What if all the qualified operators are temporarily not accessible?

For each batch OSWI unit, a qualified operator must always be accessible when the unit is operating. For each continuous OSWI unit or intermittent OSWI unit, 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 three criteria specified in [paragraphs \(a\)](#) through [\(c\)](#) 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 12 hours or less, the OSWI unit may be operated by other plant personnel familiar with the operation of the OSWI unit who have completed review of the information specified in [§ 60.2910\(a\)](#) within the past 12 months. You do not need to notify the Administrator or include this as a deviation in your annual report.

(b) When all qualified operators are not accessible for more than 12 hours, but less than 2 weeks, the OSWI unit may be operated by other plant personnel familiar with the operation of the OSWI unit who have completed a review of the information specified in [§ 60.2910\(a\)](#) 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 [§ 60.2956](#).

(c) When all qualified operators are not accessible for 2 weeks or more, you must take the two actions that are described in [paragraphs \(c\)\(1\)](#) 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 EPA 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 EPA to continue operation of the OSWI unit. You must submit the first status report 4 weeks after you notify the Administrator of the deviation under [paragraph \(c\)\(1\)](#) of this section. If EPA notifies you that your request to continue operation of the OSWI unit is disapproved, the OSWI 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 \(c\)\(2\)\(i\)](#) and [\(ii\)](#) of this section.

(i) A qualified operator is accessible as required under [§ 60.2905\(a\)](#).

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

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27941](#), June 30, 2025]

Emission Limitations and Operating Limits

§ 60.2915 What emission limitations must I meet and by when?

For OSWI units with initial startup before June 30, 2025, you must meet the emission limitations specified in table 1 to this subpart 60 days after your OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup. For OSWI units with capacities greater than 10 tons per day and with initial startup on or after June 30, 2025, you must meet the emissions limitations specified in table 1a to this subpart 60 days after your OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup. For very small municipal waste combustion units and institutional waste incineration units with capacities less than or equal to 10 tons per day with initial startup on or after June 30, 2025, you must meet the emission limitations specified in table 1b to this subpart 60 days after your OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup.

[[90 FR 27941](#), June 30, 2025]

§ 60.2916 What operating limits must I meet and by when?

You must comply with the requirements in [paragraphs \(a\)](#) through [\(h\)](#) of this section, as applicable. If you own or operate a very small municipal waste combustion unit or institutional

waste incineration unit using the substitute means of compliance demonstration under [§ 60.2929](#), the references in this section to the most recent performance test demonstrating compliance are not applicable and instead, refer to the limits established during the representative performance test identified in the information submitted as specified in [§ 60.2929\(b\)](#).

(a) You must establish a maximum charge rate, calculated using the procedures in [paragraph \(a\)\(1\)](#) or [\(2\)](#) of this section, as appropriate.

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

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

(b) You must establish a minimum combustion chamber operating temperature equal to the lowest 1-hour average combustion chamber operating temperature measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(c) If you use a wet scrubber to comply with the emission limitations, you must establish operating limits for the operating parameters as described in [paragraphs \(c\)\(1\)](#) through [\(3\)](#) of this section.

(1) Minimum pressure drop across the wet 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 wet scrubber, which is calculated as the average amperage to the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

(2) Minimum scrubber liquor flow rate, which is calculated as the lowest 1-hour 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.

(3) Minimum scrubber liquor pH, which is calculated as the lowest 1-hour average liquor pH at the outlet to the wet scrubber measured during the most recent performance test demonstrating compliance with the hydrogen chloride and sulfur dioxide emission limitations.

(d) If you use a dry scrubber to comply with the emission limitations, you must measure the injection rate of each sorbent during the performance test. The minimum operating limit for the injection rate of each sorbent is calculated as the lowest 1-hour average injection rate for each sorbent measured during the most recent performance test demonstrating compliance with the hydrogen chloride emission limitations.

(e) 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 minimum 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.

(f) 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. Calculate the alarm time (*i.e.*, time that the alarm sounds) as specified in [paragraphs \(f\)\(1\)](#) and [\(2\)](#) of this section.

(1) If inspection of the fabric filter demonstrates that no corrective action is required, the alarm duration is not counted in the alarm time calculation.

(2) If corrective action is required and you take less than an hour to initiate corrective action, the alarm time is counted as 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time is counted as the actual amount of time taken to initiate corrective action.

(g) If you own or operate a very small municipal waste combustion unit or institutional waste incineration unit with capacity less than or equal to 10 tons per day and you demonstrate continuous compliance according to [§ 60.2932\(d\)](#), you must establish the amount of waste burned in each waste category as a percentage of total waste burned on a mass basis. These percentages are your waste profile and must be based on the categories of waste fed to the incinerator (*e.g.*, food waste, paper waste, wood waste) during the most recent performance test.

(h) You must meet the operating limits established during the initial or representative performance test no later than the date specified in [paragraph \(h\)\(1\)](#) or [\(2\)](#) of this section, as applicable.

(1) For each OSWI unit with a capacity greater than 10 tons per day or for each very small municipal waste combustion unit or institutional waste incineration unit with a capacity less than or equal to 10 tons per day for which you conduct an initial performance test under [§ 60.2927\(a\)](#), within 60 days after your OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup.

(2) For each very small municipal waste combustion unit or institutional waste incineration unit for which you use the substitute means of compliance demonstration under [§ 60.2929](#), by the date you submit to the Administrator the information required in [§ 60.2929\(b\)](#).

[\[90 FR 27941, June 30, 2025\]](#)

§ 60.2917 What if I do not use a wet scrubber, dry scrubber, electrostatic precipitator, or fabric filter to comply with the emission limitations?

If you use an air pollution control device other than a wet scrubber, dry scrubber, electrostatic precipitator, or fabric filter to comply with the emission limitations under [§ 60.2915](#), you must petition the EPA Administrator for specific operating limits to be established during the performance test and then continuously monitored thereafter. Additionally, unless you demonstrate continuous compliance according to [§ 60.2932\(d\)](#), if you limit emissions in some manner other than an add-on control device to comply with the emission limitations under [§ 60.2915](#), such as by material balance, then you must submit a petition for approval of your means of limiting your emissions. You must submit the petition at least 60 days before the performance test is scheduled to begin and not conduct the initial performance test until after the petition has been approved by the EPA. 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 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 that 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.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27942](#), June 30, 2025]

§ 60.2918 [Reserved]

Performance Testing

§ 60.2922 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) All performance tests must be conducted using the methods in tables 1, 1a, and 1b to this subpart.
- (c) All performance tests must be conducted using the minimum run duration specified in tables 1, 1a, and 1b to this subpart.
- (d) EPA Method 1 of Appendix A to this part must be used to select the sampling location and number of traverse points.
- (e) EPA Method 3A or 3B of Appendix A to this part or ASME/ANSI PTC 19.10-1981 (incorporated by reference, see [§ 60.17](#)), in lieu of EPA Method 3B, must be used for gas composition analysis, including measurement of oxygen concentration. EPA Method 3A or 3B of Appendix A to this part or ASME/ANSI PTC 19.10-1981 must be used simultaneously with each method.
- (f) All pollutant concentrations, except for opacity, must be adjusted to 7 percent oxygen using Equation 1 to [§ 60.2975](#).
- (g) EPA Method 26A of Appendix A to this part must be used for hydrogen chloride concentration analysis, with the additional requirements specified in [paragraphs \(g\)\(1\)](#) through [\(3\)](#) of this section.
- (1) The probe and filter must be conditioned prior to sampling using the procedure described in [paragraphs \(g\)\(1\)\(i\)](#) through [\(iii\)](#) of this section.
- (i) Assemble the sampling train(s) and conduct a conditioning run by collecting between 14 liters per minute (0.5 cubic feet per minute) and 30 liters per minute (1.0 cubic feet per minute) of gas over a one-hour period. Follow the sampling procedures outlined in [section 8.1.5](#) of EPA Method 26A of Appendix A to this part. For the conditioning run, water can be used as the impinger solution.
- (ii) Remove the impingers from the sampling train and replace with a fresh impinger train for the sampling run, leaving the probe and filter (and cyclone, if used) in position. Do not recover the filter or rinse the probe before the first run. Thoroughly rinse the impingers used in the preconditioning run with deionized water and discard these rinses.
- (iii) The probe and filter assembly are conditioned by the stack gas and are not recovered or cleaned until the end of testing.
- (2) For the duration of sampling, a temperature around the probe and filter (and cyclone, if used) between 120 °C (248 °F) and 134 °C (273 °F) must be maintained.

(3) If water droplets are present in the sample gas stream, the requirements specified in [paragraphs \(g\)\(3\)\(i\)](#) and [\(ii\)](#) of this section must be met.

(i) The cyclone described in [section 6.1.4](#) of EPA Method 26A of Appendix A to this part must be used.

(ii) The post-test moisture removal procedure described in [section 8.1.6](#) of EPA Method 26A of Appendix A to this part must be used.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27942](#), June 30, 2025]

§ 60.2923 How are the performance test data used?

You use results of performance tests to demonstrate compliance with the emission limitations in tables 1, 1a, and 1b to this subpart.

[[90 FR 27942](#), June 30, 2025]

Initial Compliance Requirements

§ 60.2927 How do I demonstrate initial compliance with the emission limitations and establish the operating limits?

(a) Except as provided in [paragraph \(b\)](#) of this section, you must conduct an initial performance test, as required under [§ 60.8](#), to determine compliance with the emission limitations in table 1, 1a, or 1b to this subpart and to establish operating limits using the procedures in [§ 60.2916](#) or [§ 60.2917](#). The initial performance test must be conducted using the test methods listed in table 1, 1a, or 1b to this subpart and the procedures in [§ 60.2922](#). In the event of any conflict between [§ 60.8](#) and the provisions of this subpart, the provisions of this subpart shall apply.

(b) For very small municipal waste combustion units and institutional waste incineration units with a capacity less than or equal to 10 tons per day, you must demonstrate initial compliance according to [paragraph \(a\)](#) of this section, unless you comply with the requirements for the substitute means of compliance demonstration in [§ 60.2929](#).

(c) For each OSWI unit with a capacity greater than 10 tons per day, as an alternative to conducting a performance test under [paragraph \(a\)](#) of this section for carbon monoxide, you may use a 12-hour rolling average of the 1-hour arithmetic average CEMS data to determine compliance with the emission limitations in tables 1, 1a, and 1b to this subpart. The initial performance evaluation required by [§ 60.2940\(b\)](#) must be conducted prior to collecting CEMS data that will be used for the initial compliance demonstration.

[[90 FR 27942](#), June 30, 2025]

§ 60.2928 By what date must I conduct the initial performance test?

The initial performance test must be conducted within 60 days after your OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup. For units which start-up between August 31, 2020, and December 29, 2025, the initial performance test must be conducted within 60 days after your OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after its initial startup, or by February 25, 2026, whichever date is later.

[[90 FR 27943](#), June 30, 2025]

§ 60.2929 What are the substitute means of compliance demonstration requirements for very small municipal waste combustion units and institutional waste incineration units with capacities less than or equal to 10 tons per day?

Instead of conducting the initial performance test in [§ 60.2927\(a\)](#), very small municipal waste combustion units and institutional waste incineration units with capacities less than or equal to 10 tons per day may demonstrate initial compliance according to the requirements in [paragraphs \(a\) through \(d\)](#) of this section.

(a) You must submit the information specified in [paragraph \(a\)\(1\)](#) of this section and comply with the requirements of [paragraph \(a\)\(2\)](#) of this section for each very small municipal waste combustion unit or institutional waste incineration unit for which you are using a substitute means of compliance demonstration.

(1) On or before December 29, 2025 or within 60 days of startup, whichever is later, you must submit a written notification to the Administrator via CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov>), that you intend to use the substitute means of compliance demonstration. Your submittal must include information on the design and operation of the OSWI unit, including the information in [paragraphs \(a\)\(1\)\(i\) through \(iv\)](#) of this section. Do not use CEDRI to submit information you claim as confidential business information (CBI). If you wish to assert a CBI claim, submit the information listed below following the procedures in [paragraph \(b\)\(3\)](#) of this section.

- (i) Manufacturer, make, and model of the unit.
- (ii) Type of unit (*e.g.*, burn barrel, incinerator with secondary chamber, etc.).
- (iii) Capacity of the unit.
- (iv) The anticipated waste profile, as defined in [§ 60.2977](#).

(2) Beginning on December 29, 2025 or upon initial startup, whichever is later, you must collect the data in [paragraphs \(a\)\(2\)\(i\)](#) through [\(vii\)](#) of this section. You must continue to collect the data in [paragraphs \(a\)\(2\)\(i\)](#) through [\(vii\)](#) of this section until you meet the requirements of [paragraph \(b\)](#) of this section.

(i) Identity and weight of each waste type (*e.g.*, lbs of paper waste, food waste, wood or yard waste) on a weekly total basis for the date range the information is collected.

(ii) Identity and quantities (*e.g.*, flow rate or percentage of operating time) of supplemental fuels burned on a weekly total basis for the date range the information is collected.

(iii) Percentage of total waste burned for each waste type on a weekly average basis for the date range the information is collected.

(iv) Temperature indicative of the combustion chamber and description of where temperature is measured. Record this information on a 3-hour rolling average basis for the date range the information is collected.

(v) Hours operated per day for the date range the information is collected.

(vi) Charge rate each day in tons per day for the date range the information is collected.

(vii) Operating parameter data for any air pollution control devices. For wet scrubbers, include pressure drop across the scrubber or amperage to the scrubber, scrubber liquor inlet flow rate, and scrubber liquor pH at the outlet of the scrubber. For dry scrubbers, include injection rate of each sorbent used. For electrostatic precipitators, include the secondary voltage, secondary amperage, and secondary power. Record this information on a 3-hour rolling average basis for the date range the information is collected.

(b) On or before the latest of March 30, 3027; 60 days after the very small municipal waste combustion unit or institutional waste incineration unit reaches the charge rate at which it will operate; or 180 days after initial startup, you must identify the results of a performance test in the EPA's WebFIRE database that is representative for your very small municipal waste combustion unit or institutional waste incineration unit using the criteria in [paragraphs \(b\)\(2\)\(i\)](#) through [\(viii\)](#) of this section and submit the information in [paragraphs \(b\)\(1\)](#) and [\(2\)](#) of this section. You must submit the information following the procedure in [paragraph \(b\)\(3\)](#) of this section. The performance test may be any test that meets the requirements in [paragraph \(c\)](#) of this section, regardless of location, that is representative of your OSWI unit.

(1) Identify the representative performance test used to demonstrate initial compliance with each very small municipal waste combustion unit or institutional waste incineration unit by submitting the information in [paragraphs \(b\)\(1\)\(i\)](#) through [\(vi\)](#) of this section as provided in the EPA's WebFIRE database for the performance test:

(i) Organization.

- (ii) Facility.
- (iii) City.
- (iv) State.
- (v) County.
- (vi) Submission date.

(2) Describe how the test is representative for your OSWI unit, based on the following criteria, using the data submitted as specified in [paragraph \(a\)\(1\)](#) of this section and collected as specified in [paragraph \(a\)\(2\)](#) of this section:

- (i) Unit design, including type of unit and any associated air pollution control devices.
- (ii) Charge rate.
- (iii) Type of operation (batch, continuous, intermittent).
- (iv) Combustion temperature and location of temperature measurement.
- (v) Type(s) of waste burned.
- (vi) Waste profile, as defined in [§ 60.2977](#).
- (vii) Type and amount of supplemental fuels.
- (viii) Similarity of air pollution control devices and operation of the air pollution control devices, if the performance test was conducted on a unit with an air pollution control device.

(3) You must submit the information required in [paragraphs \(b\)\(1\)](#) and [\(2\)](#) of this section via CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. If you wish to assert a CBI claim, submit the information, including information claimed to be CBI, to the EPA following the procedures in [paragraphs \(b\)\(3\)\(i\)](#) and [\(ii\)](#) of this section. Clearly mark the part or all of the information that you claim as CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in [40 CFR part 2](#). All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. You must submit the same file

submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(i) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqps_cbi@epa.gov, and as described above, should include clear CBI markings and be flagged to the attention of the Other Solid Waste Incinerator Units Sector Lead. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqps_cbi@epa.gov to request a file transfer link.

(ii) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: U.S. EPA, Attn: OAQPS Document Control Officer and Other Solid Waste Incinerator Units Sector Lead, Mail Drop: C404-02, 109 T.W. Alexander Drive, P.O. Box 12055, RTP, NC 27711. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

(c) Any performance test used as a representative test in a substitute means of compliance demonstration under [paragraph \(b\)](#) of this section must be conducted following the initial testing requirements of [§ 60.2922](#) and demonstrate compliance with the emission limits in table 1b to this subpart. In addition to the results of the performance test and the information required by [§ 60.8\(f\)\(2\)](#), the performance test report must contain the information in [paragraphs \(c\)\(1\)](#) through [\(8\)](#) of this section.

(1) Unit design, including type of unit and any associated air pollution control devices.

(2) Charge rate during the test.

(3) Type of operation (batch, continuous, intermittent).

(4) Combustion temperature and location of temperature measurement. The temperature must be recorded continuously for each run of the performance test. The performance test report must also identify the lowest 1-hour average combustion chamber operating temperature.

(5) Types of waste burned during the test.

(6) Waste profile, as defined in [§ 60.2977](#), established during the test.

(7) Type and amount of supplemental fuels burned during the test and the timeframe that each supplemental fuel was burned during the test.

(8) If the performance test was conducted on a unit with an air pollution control device, the operating parameter data for the control device must be recorded continuously for each run of

the performance test. The performance test report must also identify the lowest or highest, as applicable, 1-hour average for the operating parameter.

(i) For wet scrubbers, the performance test report must include data for pressure drop across the scrubber or amperage to the scrubber, scrubber liquor inlet flow rate, and scrubber liquor pH at the outlet of the scrubber.

(ii) For dry scrubbers, the performance test report must include data for the injection rate of each sorbent used.

(iii) For electrostatic precipitators, the performance test report must include data for the secondary voltage, secondary amperage, and secondary power.

(d) If there are no results from a performance test that meet the requirements of [paragraph \(c\)](#) of this section that are representative of your OSWI unit, you must demonstrate initial compliance according to the requirements of [§ 60.2927\(a\)](#).

[[90 FR 27943](#), June 30, 2025]

Continuous Compliance Requirements

§ 60.2932 How do I demonstrate continuous compliance with the emission limitations and the operating limits?

You must demonstrate continuous compliance according to the requirements in [paragraphs \(a\)](#) through [\(c\)](#) of this section, unless you own or operate a very small municipal waste combustion unit or institutional waste incineration unit with a capacity less than or equal to 10 tons per day. If you own or operate a very small municipal waste combustion unit or institutional waste incineration unit with a capacity less than or equal to 10 tons per day, you must either comply with the requirements in [paragraphs \(a\)](#) and [\(c\)](#) of this section or the requirements in [paragraph \(d\)](#) of this section.

(a) You must conduct an annual performance test for all pollutants in table 1, 1a, or 1b to this subpart for each OSWI unit to determine compliance with the emission limitations, except if you own or operate an OSWI unit with a capacity greater than 10 tons per day you are not required to conduct an annual performance test for carbon monoxide. The annual performance test must be conducted using the test methods listed in table 1, 1a, or 1b to this subpart and the procedures in [§ 60.2922](#).

(b) You must continuously monitor carbon monoxide emissions to determine compliance with the carbon monoxide emissions limitation. Twelve-hour rolling average values, including CEMS data during startup and shutdown as defined in this subpart, are used to determine compliance. A 12-hour rolling average value above the carbon monoxide emission limit in table 1, 1a, or 1b to this subpart constitutes a deviation from the emission limitation.

(c) You must continuously monitor the operating parameters specified in [§ 60.2916\(a\)](#) through [\(f\)](#) or established under [§ 60.2917](#). Three-hour rolling average values are used to determine compliance with the operating limits, except for bag leak detection system alarm time, unless a different averaging period is established under [§ 60.2917](#). A 3-hour rolling average value (unless a different averaging period is established under [§ 60.2917](#)) above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. For bag leak detection systems, an alarm time of more than 5 percent of the operating time during a 6-month period constitutes a deviation from the operating limit. Operating limits do not apply during performance tests.

(d) For each very small municipal waste combustion unit or institutional waste incineration unit with capacity less than or equal to 10 tons per day, unless you comply with the requirements in [paragraphs \(a\)](#) and [\(c\)](#) of this section, you must comply with the requirements in [paragraphs \(d\)\(1\)](#) through [\(3\)](#) of this section.

(1) You must maintain the percentage of waste burned in each waste category within ± 15 percent of the percentage of total waste burned on a mass basis as established for that waste category according to the waste profile established under [§ 60.2916\(g\)](#). You must demonstrate that the percentage of waste burned in each waste category is maintained within ± 15 percent of the percentage of total waste burned on a mass basis as established for that waste category according to the waste profile established under [§ 60.2916\(g\)](#) according to [paragraphs \(d\)\(1\)\(i\)](#) through [\(iii\)](#) of this section.

(i) At the end of each calendar quarter, you must determine the mass of waste burned in each waste category for that quarter. You must determine the total waste burned during the quarter by summing the quarterly totals for all the waste categories. You must then determine the amount of waste burned in each waste category as a percentage of the total waste burned on a mass basis by dividing the quarterly total in each waste category by the quarterly total waste burned.

(ii) You must also maintain records as required in [§ 60.2949\(q\)](#).

(iii) The values calculated in (d)(1)(i) must be ± 15 percent of the percentage of total waste burned on a mass basis as established for that waste category according to the waste profile established under [§ 60.2916\(g\)](#). Failure to maintain the percentage of waste burned in each waste category within ± 15 percent of the percentage established for that waste category in any calendar quarter constitutes a deviation.

(2) If you want to establish new operating parameter limits or establish a different waste profile, you must comply with [§ 60.2935\(b\)](#).

(3) You must continuously monitor the operating parameters specified in [§ 60.2916\(b\)](#) through [\(f\)](#), as applicable. The total daily charge rate is used to determine compliance with the charge rate limit in [§ 60.2916\(a\)](#). For the operating parameters in [§ 60.2916\(b\)](#) through [\(f\)](#), determine compliance as described in [paragraph \(d\)\(3\)\(i\)](#) or [\(ii\)](#) of this section. Failure to meet the operating parameters specified in [§ 60.2916\(a\)](#) through [\(f\)](#) is a deviation.

(i) Three-hour rolling average values are used to determine compliance with the operating parameter limits, unless your OSWI unit operates on a batch basis and it is operated for less than three hours.

(ii) If your OSWI unit operates on a batch basis, and you operate for less than three hours, compliance with the operating parameter limits is determined by averaging the operating parameter over the length of the batch operation.

[[90 FR 27944](#), June 30, 2025]

§ 60.2933 By what date must I conduct the annual performance test?

For each OSWI unit that is subject to the annual performance test requirement in [§ 60.2932\(a\)](#), you must conduct an annual performance test no later than 14 calendar months following the initial performance test. Conduct subsequent annual performance tests no later than 14 calendar months following the previous annual performance test.

[[90 FR 27945](#), June 30, 2025]

§ 60.2934 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 three consecutive annual tests, and all performance tests for the pollutant over that period 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 OSWI unit continues to meet the emission limitation for the pollutant, you may choose to conduct performance tests for that pollutant 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 any pollutant, you must conduct annual performance tests for that pollutant until three consecutive annual performance tests for that pollutant all show compliance.

(d) For very small municipal waste combustion units and institutional waste incineration units with capacities less than or equal to 10 tons per day demonstrating initial compliance following the substitute means of compliance demonstration requirements in [§ 60.2929](#), the requirements in [paragraphs \(a\)](#) through [\(c\)](#) of this section do not apply.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27945](#), June 30, 2025]

§ 60.2935 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) For each very small municipal waste combustion unit or institutional waste incineration unit for which you opt to demonstrate continuous compliance following the requirements in [§ 60.2932\(d\)](#), if you want to establish new operating parameter limits or establish a different waste profile, you must comply with either [paragraph \(b\)\(1\)](#) or [\(2\)](#) of this section.

(1) You must conduct a new performance test of the unit using the test methods listed in table 1b to this subpart and the procedures in [§ 60.2922](#) with a waste stream representative of the new waste profile or under the new operating parameter limits.

(2) You must identify a representative performance test that meets the requirements in [§ 60.2929\(c\)](#). You must submit the information in [§ 60.2929\(b\)\(1\)](#) and [\(2\)](#) to the Administrator.

[[90 FR 27945](#), June 30, 2025]

Monitoring

§ 60.2939 What continuous emission monitoring systems must I install?

(a) For each OSWI unit with a capacity greater than 10 tons per day, you must install, calibrate, maintain, and operate continuous emission monitoring systems for carbon monoxide and for oxygen. You must monitor the oxygen concentration at each location where you monitor carbon monoxide.

(b) You must install, evaluate, and operate each continuous emission monitoring system according to the “Monitoring Requirements” in [§ 60.13](#).

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27945](#), June 30, 2025]

§ 60.2940 How do I make sure my continuous emission monitoring systems are operating correctly?

(a) Conduct initial, daily, quarterly, and annual evaluations of your continuous emission monitoring systems that measure carbon monoxide and oxygen.

(b) Complete your initial performance evaluation of the continuous emission monitoring systems within 60 days after your OSWI unit reaches the maximum load level at which it will operate, but no later than 180 days after its initial startup.

(c) For initial and annual performance evaluations, collect data concurrently (or within 30 to 60 minutes) using your carbon monoxide and oxygen continuous emission monitoring systems. To validate carbon monoxide concentration levels, use EPA Method 10, 10A, or 10B of Appendix A to this part. Use EPA Method 3A or 3B of Appendix A to this part or ASME/ANSI PTC 19.10-1981 (incorporated by reference, see [§ 60.17](#)), in lieu of Method 3B, to measure oxygen. Collect the data during each initial and annual evaluation of your continuous emission monitoring systems following the applicable performance specifications in Appendix B to this part. Table 3 to this subpart shows the required span values and performance specifications that apply to each continuous emission monitoring system.

(d) Follow the quality assurance procedures in Procedure 1 of [appendix F of this part](#) for each continuous emission monitoring system. The procedures include daily calibration drift and quarterly accuracy determinations.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27945](#), June 30, 2025]

§ 60.2941 What is my schedule for evaluating continuous emission monitoring systems?

(a) Conduct annual evaluations of your continuous emission monitoring systems no more than 12 months after the previous evaluation was conducted.

(b) Evaluate your continuous emission monitoring systems daily and quarterly as specified in [appendix F of this part](#).

§ 60.2942 What is the minimum amount of monitoring data I must collect with my continuous emission monitoring systems?

(a) Where continuous emission monitoring systems are required, obtain 1-hour arithmetic averages. Except for CEMS data during startup and shutdown, as defined in this subpart, the 1-hour arithmetic averages for carbon monoxide must be expressed in parts per million by dry volume corrected to 7 percent oxygen. The CEMS data during startup and shutdown are not corrected to 7 percent oxygen and are measured at stack oxygen content. Use the 1-hour averages of oxygen data from your CEMS to determine the actual oxygen level and to calculate emissions at 7 percent oxygen. Use Equation 2 in [§ 60.2975](#) to calculate the 12-hour rolling averages from the 1-hour arithmetic averages.

(b) Obtain at least two data points per hour in order to calculate a valid 1-hour arithmetic average. [Section 60.13\(e\)\(2\)](#) requires your continuous emission monitoring systems to

complete at least one cycle of operation (sampling, analyzing, and data recording) for each 15-minute period.

(c) Obtain valid 1-hour averages for at least 75 percent of the operating hours per day for at least 90 percent of the operating days per calendar quarter. An operating day is any day the unit combusts any municipal or institutional solid waste.

(d) If you do not obtain the minimum data required in [paragraphs \(a\)](#) through [\(c\)](#) of this section, you have deviated from the data collection requirement regardless of the emission level monitored.

(e) If you do not obtain the minimum data required in [paragraphs \(a\)](#) through [\(c\)](#) of this section, you must still use all valid data from the continuous emission monitoring systems in calculating emission concentrations.

(f) If continuous emission monitoring systems are temporarily unavailable to meet the data collection requirements, refer to table 3 to this subpart. It shows alternate methods for collecting data when systems malfunction or when repairs, calibration checks, or zero and span checks keep you from collecting the minimum amount of data. Failure to collect required data is a deviation of the monitoring requirements.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27945](#), June 30, 2025]

§ 60.2943 How do I convert my 1-hour arithmetic averages into the appropriate averaging times and units?

(a) Use Equation 1 in [§ 60.2975](#) to calculate emissions at 7 percent oxygen.

(b) Use Equation 2 in [§ 60.2975](#) to calculate the 12-hour rolling averages for concentrations of carbon monoxide.

§ 60.2944 What operating parameter monitoring equipment must I install, or what operating parameters must I monitor?

(a) You must install, calibrate (to manufacturers' specifications at the frequency recommended by the manufacturer), 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 to this subpart, as applicable. These devices (or methods) must measure and record the values for these operating parameters at the frequencies indicated in table 2 to this subpart at all times. The devices must be positioned to provide a representative measurement of the parameter monitored.

(b) You must install, calibrate (to manufacturers' specifications), maintain, and operate a device or method for measuring the use of any stack that could be used to bypass the control device. The measurement must include the date, time, and duration of the use of the bypass stack.

(c) If you are using 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 \(c\)\(1\) through \(8\)](#) of this section:

(1) You must install and operate a bag leak detection system for each exhaust stack of the fabric filter. The bag leak sensor(s) must be installed in a position(s) that will be representative of the relative or absolute particulate matter loadings for each exhaust stack, roof vent, or compartment 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; and in accordance with the guidance provided in EPA-454/R-98-015 (incorporated by reference, see [§ 60.17](#));

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 1 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 automatically alert 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 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; and

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

(d) If you are required to petition the EPA for operating limits under [§ 60.2917](#), 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 [§ 60.2917](#).

§ 60.2945 Is there a minimum amount of operating parameter 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 OSWI unit is operating.
- (b) You must obtain valid monitoring data for at least 75 percent of the operating hours per day for at least 90 percent of the operating days per calendar quarter. An operating day is any day the unit combusts any municipal or institutional solid waste.
- (c) If you do not obtain the minimum data required in [paragraphs \(a\)](#) and [\(b\)](#) of this section, you have deviated from the data collection requirement regardless of the operating parameter level monitored.
- (d) 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

§ 60.2949 What records must I keep?

You must maintain the information specified in [paragraphs \(a\)](#) through [\(r\)](#) of this section, as applicable, 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 [\(10\)](#) of this section.
 - (1) The OSWI unit charge dates, times, weights, and total daily charge rates.
 - (2) The combustion chamber operating temperature every 15 minutes of operation.
 - (3) For each OSWI unit with a wet scrubber, the liquor flow rate to the wet scrubber inlet, pressure drop across the wet scrubber system or amperage to the wet scrubber, and liquor pH at the outlet of the wet scrubber, every 15 minutes of operation.
 - (4) For each OSWI unit with a dry scrubber, the injection rate of each sorbent, every 15 minutes of operation.
 - (5) For each OSWI unit with an electrostatic precipitator, the secondary voltage, secondary current, and secondary electric power, every 15 minutes of operation.

- (6) For each OSWI unit with a fabric filter, the date, time, and duration of each alarm; the times 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 the operating time during each 6-month period that the alarm sounds, calculated as specified in [§ 60.2916\(f\)](#).
- (7) For OSWI units that establish operating limits for controls under [§ 60.2917](#), you must maintain data collected for all operating parameters used to determine compliance with the operating limits.
- (8) For OSWI units that use a carbon monoxide CEMS, all 1-hour average concentrations of carbon monoxide and oxygen.
- (9) All 12-hour rolling average values of carbon monoxide emissions, corrected to 7 percent oxygen (except during periods of startup and shutdown), all 3-hour rolling average values of continuously monitored operating parameters, and total daily charge rates, as applicable.
- (10) Records of the dates, times, and durations of any bypass of the control device.
- (c) Records of the start date and time and duration in hours of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment, and description of the malfunction.
- (d) 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.
- (e) Start date, start time, and duration in hours for each period for which monitoring data show a deviation from the carbon monoxide emissions limit in table 1, 1a, or 1b to this subpart, a deviation from the operating limits in table 2 to this subpart, or a deviation from other operating limits established under [§ 60.2917](#). Include a description of the deviation, reasons for the deviation, and a description of corrective actions taken. You must record the start date, start time, and duration in hours for each period when all qualified operators were not accessible in accordance with [§ 60.2911](#).
- (f) Calendar dates when continuous monitoring systems did not collect the minimum amount of data required under [§§ 60.2942](#) and [60.2945](#).
- (g) For carbon monoxide continuous emissions monitoring systems, document the results of your annual performance evaluations, daily drift tests and quarterly accuracy determinations according to Procedure 1 of Appendix F to this part.
- (h) Records of the calibration of any monitoring devices required under [§ 60.2944](#).
- (i) 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 and a description of the types of waste burned during the test.

(j) All documentation produced as a result of the siting requirements of [§§ 60.2894](#) and [60.2895](#).

(k) Records showing the names of OSWI unit operators who have completed review of the information in [§ 60.2910\(a\)](#) as required by [§ 60.2910\(b\)](#), including the date of the initial review and all subsequent annual reviews.

(l) Records showing the names of the OSWI unit operators who have completed the operator training requirements under [§ 60.2905](#), met the criteria for qualification under [§ 60.2907](#), and maintained or renewed their qualification under [§ 60.2908](#) or [§ 60.2909](#). 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.

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

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

(o) The information listed in [§ 60.2910\(a\)](#).

(p) If you comply with the substitute means of compliance demonstration requirements in [§ 60.2929](#), you must keep the records specified in [paragraphs \(p\)\(1\)](#) through [\(4\)](#) of this section.

(1) Copy of the notification submitted to the Administrator that you intend to use the substitute means of compliance demonstration as required in [§ 60.2929\(a\)\(1\)](#).

(2) Records of the data collected as required in [§ 60.2929\(a\)\(2\)](#).

(3) Copy of the representative performance test used to demonstrate initial compliance; and

(4) Documentation of how the test in [paragraph \(p\)\(3\)](#) of this section is representative of the unit as required in [§ 60.2929\(b\)\(2\)](#).

(q) If you comply with the continuous compliance requirements of [§ 60.2932\(d\)](#), you must keep records of the following elements:

(1) Start and end times the unit is operated when waste is being combusted.

(2) Total mass of waste burned for each waste category (*i.e.*, identity and weight of each waste category such as solid waste, food waste, wood or yard waste), summed for each calendar quarter.

- (3) Total mass of waste burned each calendar quarter.
- (4) The amount of waste burned in each waste category as a percentage of total waste burned each calendar quarter.
- (5) Waste profile established under [§ 60.2916\(g\)](#).
- (6) Temperature of unit combustion chamber and description of where temperature is measured, as a 3-hour average for each batch operation.
- (7) Charge rate (in tons per day) of each operation.
- (8) For each very small municipal waste combustion unit or institutional waste incineration unit with a capacity less than or equal to 10 tons per day using a wet scrubber, dry scrubber, electrostatic precipitator, or fabric filter, the records specified in [paragraphs \(b\)\(3\) through \(10\)](#) of this section, as applicable.
- (9) For each calendar quarter, you must record whether your waste profile meets the requirement in paragraph [§ 60.2932\(d\)\(1\)\(iii\)](#).
- (r) Copies of any notifications submitted pursuant to [§§ 60.2887](#) and [60.2969](#).

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27946](#), June 30, 2025]

§ 60.2950 Where and in what format must I keep my records?

- (a) You must keep each record on site for at least 2 years. You may keep the records off site for the remaining 3 years.
- (b) All records must be available in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the Administrator.

§ 60.2951 What reports must I submit?

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

§ 60.2952 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 [§ 60.2895](#).
- (d) The waste management plan as specified in [§§ 60.2899](#) through [60.2901](#).
- (e) Anticipated date of initial startup.

§ 60.2953 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 [§ 60.2917](#).
- (e) The anticipated date of initial startup.

§ 60.2954 What information must I submit following my initial performance test?

Unless you choose to comply with the substitute means of compliance demonstration requirements in [§ 60.2929](#), you must submit the information specified in [paragraphs \(a\)](#) and [\(b\)](#) 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 [§ 60.2927](#), as applicable.
- (b) The values for the site-specific operating limits established in [§ 60.2916](#) or [§ 60.2917](#).
- (c) The waste management plan, as specified in [§§ 60.2899](#) through [60.2901](#).

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27947](#), June 30, 2025]

§ 60.2955 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 [§ 60.2954](#), unless you choose to comply with the substitute means of compliance demonstration requirements in [§ 60.2929](#). If you choose to comply with the substitute means of compliance demonstration requirements in [§ 60.2929](#), you must submit an annual report no later than 12 months following the submission of the information in [§ 60.2929\(b\)](#). You must submit subsequent reports no more than 12 months following the previous report. The permit will address the submittal of annual reports for a unit with an operating permit required under title V of the Clean Air Act.

[[90 FR 27947](#), June 30, 2025]

§ 60.2956 What information must I include in my annual report?

The annual report required under [§ 60.2955](#) must include the items listed in [paragraphs \(a\)](#) through [\(k\)](#) 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 [§§ 60.2957](#) through [60.2959](#).

(a) Company name and address.

(b) Statement by the owner or operator, with their name, title, and signature, certifying the truth, accuracy, and completeness of the report. Such certifications must also comply with the requirements of [40 CFR 70.5\(d\)](#) or [40 CFR 71.5\(d\)](#). If your report is submitted via CEDRI, the certifier's electronic signature during the submission process replaces this requirement.

(c) Date of report and beginning and ending dates of the reporting period. You are no longer required to provide the date of report when the report is submitted via CEDRI.

(d) Identification of each OSWI unit, and for each OSWI unit, the parameters monitored and values for the operating limits established pursuant to [§ 60.2916](#) or [§ 60.2917](#).

(e) If no deviations from any emission limitation or operating limit that applies to you have occurred during the annual reporting period, a statement that there were no deviations from the emission limitations or operating limits during the reporting period. If you use a CMS to monitor emissions or operating parameters and there were no periods during which any CMS was inoperative, inactive, malfunctioning or out of control, a statement that no monitoring system used to determine compliance with the emission limitations or operating limits was inoperative, inactive, malfunctioning or out of control.

(f) The highest recorded 12-hour average and the lowest recorded 12-hour average, as applicable, for carbon monoxide emissions if you are using a CEMS to demonstrate continuous compliance and 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) [Reserved]

(h) If a performance test was conducted during the reporting period, identification of the OSWI unit tested, the pollutant(s) tested, and the date of the performance test. Submit, following the procedure specified in [§ 60.2961\(b\)](#), the performance test report no later than the date that you submit the annual report.

(i) If you met the requirements of [§ 60.2934\(a\)](#) or [\(b\)](#) and did not conduct a performance test during the reporting period, you must state that you met the requirements of [§ 60.2934\(a\)](#) or [\(b\)](#), and, therefore, you were not required to conduct a performance test during the reporting period.

(j) The start date, start time, and duration in hours for each period of operation when all qualified OSWI unit operators were unavailable for more than 12 hours, but less than 2 weeks.

(k) If you are complying with the continuous compliance requirements in [§ 60.2932\(d\)](#) and have had no deviations from maintaining the percentage of waste burned in each waste category within ± 15 percent of the percentage established for that waste category for each calendar quarter for the reporting period, and the OSWI unit has been operated within the operating parameter limits established during the representative performance test identified in the information submitted as required in [§ 60.2929\(b\)](#) or the performance test conducted by the source using the test methods listed in table 1b to this subpart and the procedures in [§ 60.2922](#), a statement that there were no deviations from the percentage of waste burned in each category and the OSWI unit has been operated within the established operating parameter limits.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27947](#), June 30, 2025]

§ 60.2957 What other reports must I submit if I have a deviation?

(a) You must submit a deviation report as specified in [paragraphs \(a\)\(1\)](#) through [\(3\)](#) of this section:

(1) If your OSWI unit 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) If your OSWI unit 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 unit that meets the requirements in [§ 60.2885](#) and is required to obtain such a permit.

(3) If you deviate from the requirements to have a qualified operator accessible as specified in [§ 60.2911](#), you must meet the requirements of [§ 60.2959](#).

(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).

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27948](#), June 30, 2025]

§ 60.2958 What must I include in the deviation report?

In each report required under [§ 60.2957](#), you must include the company name and address and the beginning and ending dates for the reporting period. For any pollutant or operating parameter that deviated from the emission limitations, operating limits or other requirement specified in this subpart, or for each CMS that experienced downtime or was out of control, include the items described in [paragraphs \(a\)](#) through [\(g\)](#) of this section, as applicable. If you are complying with the continuous compliance requirements in [§ 60.2932\(d\)](#), you must also include the items described in [paragraphs \(h\)](#) and [\(i\)](#) of this section. You must identify the OSWI unit, and as applicable, the CMS, associated with the information required in [paragraphs \(a\)](#) through [\(i\)](#) of this section in your deviation report.

- (a) Identification of the emission limit, operating parameter or other requirement except as provided in paragraphs (h) and (i), from which there was a deviation and the start date, start time, and duration in hours of each deviation.
- (b) For each deviation identified in [paragraph \(a\)](#) of this section, the averaged and recorded data for those date, including, when applicable, the information recorded under [§ 60.2949\(b\)\(9\)](#) and [\(c\)](#) through [\(e\)](#) for the calendar period being reported.
- (c) For each deviation identified in [paragraph \(a\)](#) of this section, the cause of each deviation from the emission limitations, operating limits or other requirement and your corrective actions.
- (d) For each CMS, the start date, start time, duration in hours, and cause for each instance of monitor downtime (other than downtime associated with zero, span, and other routine calibration checks).
- (e) For each CMS, the start date, start time, duration in hours, and corrective action taken for each instance that the monitor is out of control.
- (f) The start date, start time, and duration in hours of any bypass of the control device and your corrective actions.
- (g) For batch OSWI units, the start date, start time, and duration in hours of any deviation from the requirements to have a qualified operator accessible as required in [§ 60.2911](#).
- (h) If you are complying with the continuous compliance requirements for OSWI units in [§ 60.2932\(d\)](#), you must identify each calendar quarter when your waste profile did not meet the requirements in [§ 60.2932\(d\)\(1\)\(iii\)](#). For each deviation, you must identify each waste category that did not meet the percentage requirements, the established percentage of total waste burned on a mass basis for that waste category in your waste profile, and the actual percentage of total waste burned on a mass basis for that waste category during the calendar quarter.

(i) If you are complying with the continuous compliance requirements in [§ 60.2932\(d\)](#), for each deviation of an operating parameter limit, identification of the operating parameter from which there was a deviation and the start date, start time, duration in hours, and cause for each deviation from the operating parameter limits established during the representative performance test identified in the information submitted as required in [§ 60.2929\(b\)](#) or a performance test of the unit conducted using the test methods listed in table 1b to this subpart and the procedures in [§ 60.2922](#) as required in [§ 60.2927\(a\)](#) or [§ 60.2935\(b\)](#).

[[90 FR 27948](#), June 30, 2025]

§ 60.2959 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 EPA 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 EPA to continue operation of the OSWI unit.

(b) If your unit was shut down by EPA, under the provisions of [§ 60.2911\(c\)\(2\)](#), due to a failure to provide an accessible qualified operator, you must notify EPA that you are resuming operation once a qualified operator is accessible.

§ 60.2960 Are there any other notifications or reports that I must submit?

Yes, you must submit notifications as provided by [§ 60.7](#).

§ 60.2961 In what form can I submit my reports?

(a) You must submit annual and deviation reports electronically or in paper format, postmarked on or before the submittal due dates. Beginning on June 30, 2026, or once the report template for this subpart has been available on the Compliance and Emissions Data Reporting Interface (CEDRI) website (<https://www.epa.gov/electronic-reporting-air-emissions/cedri>) for one year, whichever date is later, you must submit all subsequent annual compliance reports and deviation reports using the appropriate electronic report template on the CEDRI website for this subpart and following the procedure specified in [paragraph \(c\)](#) of this section. The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted.

(b) Beginning on December 29, 2025, within 60 days after the date of completing each performance test or CEMS performance evaluation that includes a relative accuracy test audit (RATA) required by this subpart, you must submit the results following the procedures specified in [paragraph \(c\)](#) of this section. You must submit the report in a file format generated using the EPA's Electronic Reporting Tool (ERT). Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) accompanied by the other information required by [§ 60.8\(f\)\(2\)](#) in portable document format (PDF). If your performance test consists solely of opacity measurements, the results do not need to be submitted in the format generated by the ERT. Instead, you may submit a PDF of the results of the opacity measurements to the EPA via CEDRI.

(c) If you are required to submit reports following the procedure specified in this [paragraph \(c\)](#), you must submit reports to the EPA via CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information in the report, you must submit a complete file in the format specified in this subpart, including information claimed to be CBI, to the EPA following the procedures in [paragraphs \(c\)\(1\)](#) and [\(2\)](#) of this section. Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in [40 CFR part 2](#). All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in this [paragraph \(c\)](#).

(1) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqps_cbi@epa.gov, and as described above, should include clear CBI markings. ERT files

should be flagged to the attention of the Group Leader, Measurement Policy Group; all other files should be flagged to the attention of the Other Solid Waste Incinerator Units Sector Lead. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqps_cbi@epa.gov to request a file transfer link.

(2) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: U.S. EPA, Attn: OAQPS Document Control Officer, Mail Drop: C404-02, 109 T.W. Alexander Drive, P.O. Box 12055, RTP, NC 27711. In addition to the OAQPS Document Control Officer, ERT files should also be sent to the attention of the Group Leader, Measurement Policy Group, and all other files should also be sent to the attention of the Other Solid Waste Incinerator Units Sector Lead. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

(d) If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. To assert a claim of EPA system outage, you must meet the requirements outlined in [paragraphs \(d\)\(1\)](#) through [\(7\)](#) of this section.

(1) You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.

(2) The outage must have occurred within the period beginning five business days prior to the date that the submission is due.

(3) The outage may be planned or unplanned.

(4) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(5) You must provide to the Administrator a written description identifying:

(i) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;

(iii) A description of measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(6) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(7) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.

(e) If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to timely comply with the reporting requirement. To assert a claim of force majeure, you must meet the requirements outlined in [paragraphs \(e\)\(1\) through \(5\)](#) of this section.

(1) You may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period beginning five business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time prescribed. Examples of such events are acts of nature (*e.g.*, hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (*e.g.*, large scale power outage).

(2) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(3) You must provide to the Administrator:

(i) A written description of the force majeure event;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;

(iii) A description of measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(4) The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(5) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

[\[90 FR 27948, June 30, 2025\]](#)

§ 60.2962 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

§ 60.2966 Am I required to apply for and obtain a title V permit for my unit?

(a) Yes, if you are subject to this subpart, you are required to apply for and obtain a title V operating permit unless you meet the relevant requirements for an exemption specified in [§ 60.2887](#), or unless your unit is an air curtain incinerator exempt under [paragraph \(b\)](#) of this section.

(b) If you own or operate an air curtain incinerator that burns only wood waste; clean lumber; yard waste; or a mixture of wood waste, clean lumber, and/or yard waste and that is subject only to the requirements in [§§ 60.2970](#) through [60.2973](#), you are exempt from the obligation to obtain a title V operating permit, provided that your air curtain incinerator is not otherwise required to obtain a title V operating permit.

[[89 FR 89931](#), Nov. 14, 2024]

§ 60.2967 When must I submit a title V permit application for my new unit?

(a) If your new unit subject to this subpart is not subject to an earlier permit application deadline, a complete title V permit application must be submitted on or before one of the dates specified in [paragraphs \(a\)\(1\)](#) or [\(2\)](#) of this section. (See section 503(c) of the Clean Air Act and [40 CFR 70.5\(a\)\(1\)\(i\)](#) and [40 CFR 71.5\(a\)\(1\)\(i\)](#).)

(1) For a unit that commenced operation as a new source as of December 16, 2005, then a complete title V permit application must be submitted not later than December 18, 2006.

(2) For a unit that does not commence operation as a new source until after December 16, 2005, then a complete title V permit application must be submitted not later than 12 months after the date the unit commences operation as a new source.

(b) If your new unit subject to this subpart is subject to title V as a result of some triggering requirement(s) other than this subpart (for example, a unit subject to this subpart may be a major source or part of a major source), then your unit may be required to apply for a title V permit prior to the deadlines specified in [paragraph \(a\)](#) of this section. If more than one requirement triggers a source's obligation to apply for a title V permit, the 12-month timeframe for filing a title V permit application is triggered by the requirement that first causes the source to be subject to title V. (See section 503(c) of the Clean Air Act and [40 CFR 70.3\(a\)](#) and [\(b\)](#), [40 CFR 70.5\(a\)\(1\)\(i\)](#), [40 CFR 71.3\(a\)](#) and [\(b\)](#), and [40 CFR 71.5\(a\)\(1\)\(i\)](#).)

(c) A “complete” title V permit application is one that has been determined or deemed complete by the relevant permitting authority under section 503(d) of the Clean Air Act and [40 CFR 70.5\(a\)\(2\)](#) or [40 CFR 71.5\(a\)\(2\)](#). You must submit a complete permit application by the relevant application deadline in order to operate after this date in compliance with Federal law. (See sections 503(d) and 502(a) of the Clean Air Act and [40 CFR 70.7\(b\)](#) and [40 CFR 71.7\(b\)](#).)

(d) If you own or operate an air curtain incinerator that burns only wood waste; clean lumber; yard waste; or a mixture of wood waste, clean lumber, and/or yard waste and that is subject only to the requirements in [§§ 60.2970](#) through [60.2973](#), you are exempt from the obligation to obtain a title V operating permit, provided that your air curtain incinerator is not otherwise required to obtain a title V operating permit.

[[89 FR 89931](#), Nov. 14, 2024]

Temporary-Use Incinerators and Air Curtain Incinerators Used in Disaster Recovery

§ 60.2969 What are the requirements for temporary-use incinerators and air curtain incinerators used in disaster recovery?

Your incinerator or air curtain incinerator is excluded from the requirements of this subpart if it is used on a temporary basis to combust debris from a disaster or emergency such as a tornado, hurricane, flood, ice storm, high winds, or act of bioterrorism. To qualify for this exclusion, the incinerator or air curtain incinerator must be used to combust debris in an area declared a State of Emergency by a local or State government, or the President, under the authority of the Stafford Act, has declared that an emergency or a major disaster exists in the area, and you must follow the requirements specified in [paragraphs \(a\)](#) through [\(c\)](#) of this section.

(a) If the incinerator or air curtain incinerator is used during a period that begins on the date the unit started operation and lasts 8 weeks or less within the boundaries of the same emergency or disaster declaration area, then it is excluded from the requirements of this subpart. You do not need to notify the Administrator of its use or meet the emission limitations or other requirements of this subpart.

(b) If the incinerator or air curtain incinerator will be used during a period that begins on the date the unit started operation and lasts more than 8 weeks within the boundaries of the same emergency or disaster declaration area, you must notify the Administrator that the temporary-use incinerator or air curtain incinerator will be used for more than 8 weeks and request permission to continue to operate the unit as specified in [paragraphs \(b\)\(1\)](#) and [\(2\)](#) of this section.

(1) The notification must be submitted in writing by the date 8 weeks after you start operation of the temporary-use incinerator or air curtain incinerator within the boundaries of the current emergency or disaster declaration area.

(2) The notification must contain the date the incinerator or air curtain incinerator started operation within the boundaries of the current emergency or disaster declaration area, identification of the disaster or emergency for which the incinerator or air curtain incinerator is being used, a description of the types of materials being burned in the incinerator or air curtain incinerator, a brief description of the size and design of the unit (for example, an air curtain incinerator or a modular starved-air incinerator), the reasons the incinerator or air curtain incinerator must be operated for more than 8 weeks, and the amount of time for which you request permission to operate including the date you expect to cease operation of the unit.

(c) If you submitted the notification containing the information in [paragraph \(b\)\(2\)](#) of this section, by the date specified in [paragraph \(b\)\(1\)](#) of this section, you may continue to operate the incinerator or air curtain incinerator for another 8 weeks, which is a total of 16 weeks from the date the unit started operation within the boundaries of the current emergency or disaster declaration area. You do not have to meet the emission limitations or other requirements of this subpart during this period.

(1) At the end of 16 weeks from the date the incinerator or air curtain incinerator started operation within the boundaries of the current emergency or disaster declaration area, you must cease operation of the unit or comply with all requirements of this subpart, unless the Administrator has approved in writing your request to continue operation.

(2) If the Administrator has approved in writing your request to continue operation, then you may continue to operate the incinerator or air curtain incinerator within the boundaries of the current emergency or disaster declaration area until the date specified in the approval, and you do not need to comply with any other requirements of this subpart during the approved time period.

[[89 FR 89931](#), Nov. 14, 2024]

Air Curtain Incinerators That Burn Only Wood Waste, Clean Lumber, and Yard Waste

§ 60.2970 What is an air curtain incinerator?

(a) An air curtain incinerator operates by forcefully projecting a curtain of air across an open, integrated combustion chamber (fire box) or open pit or trench (trench burner) in which combustion occurs. For the purpose of this subpart and [subpart FFFF of this part](#) only, air curtain incinerators include both firebox and trench burner units.

(b) [Reserved]

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27949](#), June 30, 2025]

§ 60.2971 What are the emission limitations for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?

(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) The limitations in [paragraph \(a\)](#) of this section apply at all times.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27949](#), June 30, 2025]

§ 60.2972 How must I monitor opacity for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?

(a) Use EPA Method 9 of Appendix A to this part or ASTM D7520-16 (incorporated by reference, see [§ 60.17](#)), 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 months following the date of your previous test.

(d) If the air curtain incinerator has been out of operation for more than 12 months following the date of the previous test, then you must conduct a test for opacity upon startup of the unit.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27949](#), June 30, 2025]

§ 60.2973 What are the recordkeeping and reporting requirements for air curtain incinerators that burn only wood waste, clean lumber, and yard waste?

(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 incinerator.

(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 in either paper copy or computer-readable format that can be printed upon request, unless the Administrator approves another format, for at least 5 years. You must keep each record on site for at least 2 years. You may keep the records off site for the remaining 3 years.

(c) Make all records available for submittal to the Administrator or for an inspector's 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) Before December 29, 2025, submit initial and annual opacity test reports as electronic or paper copy on or before the applicable submittal date. On and after December 29, 2025, within 60 days after the date of completing the initial opacity test and each annual opacity test required by this subpart, you must submit the results of the opacity test following the procedures specified in [§ 60.2961\(b\)](#).

(f) Keep a copy of the initial and annual reports on site for a period of 5 years. You must keep each report on site for at least 2 years. You may keep the reports off site for the remaining 3 years.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27949](#), June 30, 2025]

§ 60.2974 [Reserved]

Equations

§ 60.2975 What equations must I use?

(a) **Percent oxygen.** Adjust all pollutant concentrations to 7 percent oxygen using equation 1 of this section.

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

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

%O₂ = oxygen concentration measured on a dry basis, percent

(b) **Capacity of a very small municipal waste combustion unit.** For very small municipal waste combustion units that can operate continuously for 24-hour periods, calculate the unit capacity based on 24 hours of operation at the maximum charge rate. To determine the maximum charge rate, use one of two methods:

(1) For very small municipal waste combustion units with a design based on heat input capacity, calculate the maximum charging rate based on the maximum heat input capacity and one of two heating values:

(i) If your very small municipal waste combustion unit combusts refuse-derived fuel, use a heating value of 12,800 kilojoules per kilogram (5,500 British thermal units per pound).

(ii) If your very small municipal waste combustion unit combusts municipal solid waste, use a heating value of 10,500 kilojoules per kilogram (4,500 British thermal units per pound).

(2) For very small municipal waste combustion units with a design not based on heat input capacity, use the maximum design charging rate.

(c) **Capacity of a batch very small municipal waste combustion unit.** Calculate the capacity of a batch OSWI unit as the maximum design amount of municipal solid waste it can charge per batch multiplied by the maximum number of batches it can process in 24 hours. Calculate the maximum number of batches by dividing 24 by the number of hours needed to process one batch. Retain fractional batches in the calculation. For example, if one batch requires 16 hours, the unit can combust 24/16, or 1.5 batches, in 24 hours.

(d) **Carbon monoxide pollutant rate.** When hourly average pollutant rates (E_h) are obtained (e.g., CEMS values), compute the rolling average carbon monoxide pollutant rate (E_a) for each 12-hour period using the following equation:

$$E_a = \frac{1}{12} \sum_{j=1}^{12} E_{hj} \quad (\text{Eq. 2})$$

Equation 2 to Paragraph (d)

Where:

E_a = Average carbon monoxide pollutant rate for the 12-hour period, parts per million (ppm) corrected to 7 percent O₂. Note that a 12-hour period may include CEMS data during startup and

shutdown, as defined in the subpart, in which case the period will not consist entirely of data that have been corrected to 7 percent O₂.

E_{hj} = Hourly arithmetic average pollutant rate for hour “j,” ppm corrected to 7 percent O₂. CEMS data during startup and shutdown, as defined in the subpart, are not corrected to 7 percent oxygen, and are measured at stack oxygen content.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27949](#), June 30, 2025]

Definitions

§ 60.2977 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:

- (1) For approved and effective state section 111(d)/129 plans, the Director of the state air pollution control agency, or his or her delegate;
- (2) For Federal section 111(d)/129 plans, the Administrator of the EPA, an employee of the EPA, the Director of the state air pollution control agency, or employee of the state air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task; and
- (3) For NSPS, the Administrator of the EPA, an employee of the EPA, the Director of the state air pollution control agency, or employee of the state air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task.

Air curtain incinerator means an incineration unit operating by forcefully projecting a curtain of air across an open, integrated combustion chamber (fire box) or open pit or trench (trench burner) in which combustion occurs. For the purpose of this subpart and [subpart FFFF of this part](#) only, air curtain incinerators include both firebox and trench burner units.

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

Batch OSWI unit means an OSWI unit that is designed such that neither waste charging nor ash removal can occur during combustion.

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 CEMS data collected during the first hours of a OSWI 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 OSWI 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.

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

Class II municipal solid waste landfill means a landfill that meets four criteria:

- (1) Accepts, for incineration or disposal, less than 20 tons per day of municipal solid waste or other solid wastes based on an annual average;
- (2) Is located on a site where there is no evidence of groundwater pollution caused or contributed to by the landfill;
- (3) Is not connected by road to a Class I municipal solid waste landfill, as defined by Alaska regulatory code 18 AAC 60.300(c) or, if connected by road, is located more than 50 miles from a Class I municipal solid waste landfill; and
- (4) Serves a community that meets one of two criteria:
 - (i) Experiences for at least three months each year, an interruption in access to surface transportation, preventing access to a Class I municipal solid waste landfill; or
 - (ii) Has no practicable waste management alternative, with a landfill located in an area that annually receives 25 inches or less of precipitation.

Class III municipal solid waste landfill is a landfill that is not connected by road to a Class I municipal solid waste landfill, as defined by Alaska regulatory code 18 AAC 60.300(c) or, if connected by road, is located more than 50 miles from a Class I municipal solid waste landfill, and that accepts, for disposal, either of the following two criteria:

- (1) Ash from incinerated municipal waste in quantities less than 1 ton per day on an annual average, which ash must be free of food scraps that might attract animals; or
- (2) Less than 5 tons per day of municipal solid waste, based on an annual average, and is not located in a place that meets either of the following criteria:
 - (i) Where public access is restricted, including restrictions on the right to move to the place and reside there; or

(ii) That is provided by an employer and that is populated totally by persons who are required to reside there as a condition of employment and who do not consider the place to be their permanent residence.

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, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

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

Continuous emission monitoring system or CEMS means a monitoring system for continuously measuring and recording the emissions of a pollutant from an OSWI unit.

Continuous OSWI unit means an OSWI unit that is designed to allow waste charging and ash removal during combustion.

Deviation means any instance in which a unit that meets the requirements in [§ 60.2885](#), or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation, operating limit, or operator qualification and accessibility requirements; and
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any unit that meets the requirements in [§ 60.2885](#) and is required to obtain such a permit.

Dioxins/furans means tetra- through octachlorinated dibenzo-p-dioxins and dibenzofurans.

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

EPA means the Administrator of the EPA or employee of the EPA that is delegated the authority to perform the specified task.

Institutional facility means a land-based facility owned and/or operated by an organization having a governmental, educational, civic, or religious purpose such as a school, hospital, prison, military installation, church, or other similar establishment or facility.

Institutional waste means solid waste (as defined in this subpart) that is combusted at any institutional facility using controlled flame combustion in an enclosed, distinct operating unit: whose design does not provide for energy recovery (as defined in this subpart); operated without energy recovery (as defined in this subpart); or operated with only waste heat recovery

(as defined in this subpart). Institutional waste also means solid waste (as defined in this subpart) combusted on site in an air curtain incinerator that is a distinct operating unit of any institutional facility.

Institutional waste incineration unit means any combustion unit that combusts institutional waste (as defined in this subpart) and is a distinct operating unit of the institutional facility that generated the waste. Institutional waste incineration units include field-erected, modular, cyclonic burn barrel, and custom built incineration units operating with starved or excess air, and any air curtain incinerator that is a distinct operating unit of the institutional facility that generated the institutional waste (except those air curtain incinerators listed in [§ 60.2888\(b\)](#)).

Intermittent OSWI unit means an OSWI unit that is designed to allow waste charging, but not ash removal, during combustion.

Low-level radioactive waste means waste material that 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.

Metropolitan Statistical Area means any areas listed as metropolitan statistical areas in OMB Bulletin No. 05-02 entitled “Update of Statistical Area Definitions and Guidance on Their Uses” dated February 22, 2005 (available on the Web at <http://www.whitehouse.gov/omb/bulletins/>).

Modification or modified unit means an incineration unit 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 unit (not including the cost of land) updated to current costs (current dollars). For an OSWI unit, to determine what systems are within the boundary of the unit used to calculate these costs, see the definition of OSWI unit.
- (2) Any physical change in the 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 means refuse (and refuse-derived fuel) collected from the general public and from residential, commercial, institutional, and industrial sources consisting of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials and non-combustible materials such as metal, glass and rock, provided that:

(1) the term does not include industrial process wastes or medical wastes that are segregated from such other wastes; and

(2) an incineration unit shall not be considered to be combusting municipal solid waste for purposes of this subpart if it combusts a fuel feed stream, 30 percent or less of the weight of which is comprised, in aggregate, of municipal solid waste, as determined by [§ 60.2887\(b\)](#).

Municipal waste combustion unit means, for the purpose of this subpart and [subpart FFFF of this part](#), any setting or equipment that combusts municipal solid waste (as defined in this subpart) including, but not limited to, field-erected, modular, cyclonic burn barrel, and custom built incineration units (with or without energy recovery) operating with starved or excess air, boilers, furnaces, pyrolysis/combustion units, and air curtain incinerators (except those air curtain incinerators listed in [§ 60.2888\(b\)](#)).

Other solid waste incineration (OSWI) unit means either a very small municipal waste combustion unit or an institutional waste incineration unit, as defined in this subpart. Unit types listed in [§ 60.2887](#) as being excluded from the subpart are not OSWI units subject to this subpart. While not all OSWI units will include all of the following components, an OSWI unit includes, but is not limited to, the municipal or institutional solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The OSWI unit does not include air pollution control equipment or the stack. The OSWI unit boundary starts at the municipal or institutional waste hopper (if applicable) and extends through two areas:

(1) The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and

(2) The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. The OSWI unit includes all ash handling systems connected to the bottom ash handling system.

Particulate matter means total particulate matter emitted from OSWI units as measured by EPA Method 5 or EPA Method 29 of Appendix A to 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).

Reconstruction means rebuilding an incineration unit where 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 unit (not including land) updated to current costs (current dollars). For an OSWI unit, to determine what systems are within the boundary of the unit used to calculate these costs, see the definition of OSWI 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.

Rudimentary combustion device means a combustion device with capacity less than or equal to 10 tons per day that is designed and constructed without one or more of the following elements:

- (1) a stack, chimney, or pipe designed for the purpose of discharging flue gases from combustion;
- (2) mechanical draft to provide airflow;
- (3) burners designed to initiate and/or assist the combustion process, including burners designed to burn supplementary fuel; or
- (4) an ancillary power supply to operate.

Shutdown means the period of time after all waste has been combusted in the primary chamber. For continuous OSWI, shutdown shall commence no less than 2 hours after the last charge to the incinerator. For intermittent OSWI, shutdown shall commence no less than 4 hours after the last charge to the incinerator. For batch OSWI, shutdown shall commence no less than 5 hours after the high-air phase of combustion has been completed.

Small remote incinerator means an incinerator that combusts 3 tons per day or less of municipal-type solid waste and is more than 25 miles driving distance to the nearest municipal solid waste landfill.

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 that 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 OSWI unit. For batch OSWI, startup means the period of time between activation of the system and ignition of the waste.

Very small municipal waste combustion unit means any municipal waste combustion unit and small remote incinerator, as defined in this subpart, that has the capacity to combust less than 35 tons per day of municipal solid waste or refuse-derived fuel, as determined by the calculations in [§ 60.2975](#). As of December 29, 2025 small remote incinerators are considered very small municipal waste combustion units.

Waste heat recovery means the process of recovering heat from the combustion flue gases outside of the combustion firebox by convective heat transfer only.

Waste profile means, for a very small municipal waste combustion unit or institutional waste incineration unit with a capacity less than or equal to 10 tons per day, the amount of each waste category burned as a percentage of total waste burned on a mass basis.

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.
- (4) Treated wood and treated wood products, including wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

Yard waste means grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs. Yard waste comes from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands. Yard waste does not include two items:

- (1) Construction, renovation, and demolition wastes.
- (2) Clean lumber.

[[70 FR 74892](#), Dec. 16, 2005, as amended at [90 FR 27950](#), June 30, 2025]

Table 1 to Subpart EEEE of Part 60—Emission Limitations for OSWI Units That Commenced Construction on or Before August 31, 2020

As stated in [§ 60.2915](#), you must comply with the following:

For the air pollutant	You must meet this emission limitation ^a	Using this averaging time	And determining compliance using this method
1. Cadmium	18 micrograms per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Method 29 of Appendix A to this part.
2. Carbon monoxide	40 parts per million by dry volume	3-run average (1 hour minimum sample time per run during performance test), and 12-hour rolling averages measured using CEMS ^b	Method 10, 10A, or 10B of Appendix A to this part and CEMS.
3. Dioxins/furans (total basis)	33 nanograms per dry standard cubic meter	3-run average (1 hour minimum sample meter time per run)	Method 23 of Appendix A to this part.
4. Hydrogen chloride	15 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Method 26A of Appendix A to this part.
5. Lead	226 micrograms per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Method 29 of Appendix A to this part.
6. Mercury	74 micrograms per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Method 29 of Appendix A to this part.
7. Opacity	10 percent	6-minute average (observe over three 1-	Method 9 of Appendix A to this part, or ASTM D7520-16 (incorporated by

For the air pollutant	You must meet this emission limitation ^a	Using this averaging time	And determining compliance using this method
		hour test runs; <i>i.e.</i> , thirty 6-minute averages)	reference (IBR), see § 60.17 if the following conditions are met: 1. During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520-16, you or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand). 2. You must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520-16. 3. You must follow the recordkeeping procedures outlined in § 63.10(b)(1) of this subchapter for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination. 4. You or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity of any one reading and the average error must not exceed 7.5 percent opacity.
8. Oxides of nitrogen	103 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Method 7, 7A, 7C, 7D, or 7E of Appendix A to this part, or ASME/ANSI PTC 19.10-1981 (IBR, see § 60.17) in lieu of Methods 7 and 7C only.

For the air pollutant	You must meet this emission limitation ^a	Using this averaging time	And determining compliance using this method
9. Particulate matter	0.013 grains per dry standard cubic foot	3-run average (1 hour minimum sample time per run)	Method 5 or 29 of Appendix A to this part.
10. Sulfur dioxide	3.1 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Method 6 or 6C of Appendix A to this part, or ASME/ANSI PTC 19.10-1981 (IBR, see § 60.17) in lieu of Method 6 only.
^a All emission limitations (except for opacity and CEMS data during startup and shutdown) are measured at 7 percent oxygen, dry basis at standard conditions. CEMS data during startup and shutdown are measured at stack oxygen content.			
^b Calculated each hour as the average of the previous 12 operating hours.			

[[90 FR 27951](#), June 30, 2025]

Table 1a to Subpart EEEE of Part 60—Emission Limitations for OSWI Units With Capacities Greater Than 10 Tons per Day That Commenced Construction After August 31, 2020 or Commenced Reconstruction or Modification on or After December 29, 2025

As stated in [§ 60.2915](#), you must comply with the following:

For the air pollutant	You must meet this emission limitation ^a	Using this averaging time	And determining compliance using this method
1. Cadmium	18 micrograms per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Method 29 of Appendix A to this part.
2. Carbon monoxide	40 parts per million by dry volume	3-run average (1 hour minimum sample time per run during performance test), and 12-hour rolling	Method 10, 10A, or 10B of Appendix A to this part and CEMS.

For the air pollutant	You must meet this emission limitation ^a	Using this averaging time	And determining compliance using this method
		averages measured using CEMS ^b	
3. Dioxins/furans (total basis)	33 nanograms per dry standard cubic meter	3-run average (1 hour minimum sample meter time per run)	Method 23 of Appendix A to this part.
4. Hydrogen chloride	15 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Method 26A of Appendix A to this part.
5. Lead	226 micrograms per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Method 29 of Appendix A to this part.
6. Mercury	74 micrograms per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Method 29 of Appendix A to this part.
7. Opacity	10 percent	6-minute average (observe over three 1-hour test runs; i.e., thirty 6-minute averages)	Method 9 of Appendix A to this part, or ASTM D7520-16 (IBR, see § 60.17), if the following conditions are met: 1. During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520-16, you or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand). 2. You must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520-16. 3. You must follow the recordkeeping procedures outlined in § 63.10(b)(1) of

For the air pollutant	You must meet this emission limitation ^a	Using this averaging time	And determining compliance using this method
			<p>this subchapter for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination.</p> <p>4. You or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity of any one reading and the average error must not exceed 7.5 percent opacity.</p>
8. Oxides of nitrogen	103 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Method 7, 7A, 7C, 7D, or 7E of Appendix A to this part, or ASME/ANSI PTC 19.10-1981 (IBR, see § 60.17) in lieu of Methods 7 and 7C only.
9. Particulate matter	0.013 grains per dry standard cubic foot	3-run average (1 hour minimum sample time per run)	Method 5 or 29 of Appendix A to this part.
10. Sulfur dioxide	3.1 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Method 6 or 6C of Appendix A to this part, or ASME/ANSI PTC 19.10-1981 (IBR, see § 60.17) in lieu of Method 6 only.
<p>^a All emission limitations (except for opacity and CEMS data during startup and shutdown) are measured at 7 percent oxygen, dry basis at standard conditions. CEMS data during startup and shutdown are measured at stack oxygen content.</p>			
<p>^b Calculated each hour as the average of the previous 12 operating hours.</p>			

[[90 FR 27951](#), June 30, 2025]

Table 1b to Subpart EEEE of Part 60—Emission Limitations for OSWI Units With Capacities Less Than or Equal to 10 Tons per Day With That Commenced Construction After August 31, 2020 or Commenced

Reconstruction or Modification on or After December 29, 2025

As stated in [§ 60.2915](#), you must comply with the following:

For the air pollutant	You must meet this emission limitation ^a	Using this averaging time	And determining compliance using this method
1. Cadmium	400 micrograms per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Method 29 of Appendix A to this part.
2. Carbon monoxide	69 parts per million by dry volume	3-run average (1 hour minimum sample time per run during performance test), and 12-hour rolling averages measured using CEMS ^b	Method 10, 10A, or 10B of Appendix A to this part.
3a. Dioxins/furans (total mass basis) ^c	3,100 nanograms per dry standard cubic meter	3-run average (1 hour minimum sample meter time per run)	Method 23 of Appendix A to this part.
3b. Dioxins/furans (toxic equivalency basis) ^c	40 nanograms per dry standard cubic meter	3-run average (1 hour minimum sample meter time per run)	Method 23 of Appendix A to this part.
4. Hydrogen chloride	210 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Method 26A of Appendix A to this part.
5. Lead	26,000 micrograms per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Method 29 of Appendix A to this part.
6. Mercury	12 micrograms per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Method 29 of Appendix A to this part.

For the air pollutant	You must meet this emission limitation ^a	Using this averaging time	And determining compliance using this method
7. Opacity	10 percent	6-minute average (observe over three 1-hour test runs; i.e., thirty 6-minute averages)	<p>Method 9 of Appendix A to this part, or ASTM D7520-16 (IBR, see § 60.17), if the following conditions are met:</p> <ol style="list-style-type: none"> 1. During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520-16, you or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand). 2. You must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520-16. 3. You must follow the recordkeeping procedures outlined in § 63.10(b)(1) of this subchapter for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination. 4. You or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity of any one reading and the average error must not exceed 7.5 percent opacity.
8. Oxides of nitrogen	180 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Method 7, 7A, 7C, 7D, or 7E of Appendix A to this part, or ASME/ANSI PTC 19.10-1981 (IBR, see § 60.17) in lieu of Methods 7 and 7C only.

For the air pollutant	You must meet this emission limitation ^a	Using this averaging time	And determining compliance using this method
9. Particulate matter	210 milligrams per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Method 5 or 29 of Appendix A to this part.
10. Sulfur dioxide	38 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Method 6 or 6C of Appendix A to this part, or ASME/ANSI PTC 19.10-1981 (IBR, see § 60.17) in lieu of Method 6 only.
^a All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.			
^b Calculated each hour as the average of the previous 12 operating hours.			
^c For dioxins/furans, you must meet either the total mass basis limit or the toxic equivalency basis limit.			

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Table 2 to Subpart EEEE of Part 60—Operating Limits for Incinerators

As stated in [§ 60.2916](#), you must comply with the following:

For these operating parameters	You must establish these operating limits	And monitoring using these minimum frequencies		
		Data measurement	Data recording	Averaging time
1. Charge rate	Maximum charge rate	Periodic	For batch units, each batch. For continuous or intermittent units, every hour	Daily for batch units or units complying with § 60.2932(d) . 3-hour rolling for continuous and intermittent units. ^a
2. Combustion temperature	Minimum combustion chamber operating temperature	Continuous	Every 15 minutes	3-hour rolling. ^a
3. Pressure drop across the wet scrubber or	Minimum pressure drop or amperage	Continuous	Every 15 minutes	3-hour rolling. ^a

For these operating parameters	You must establish these operating limits	And monitoring using these minimum frequencies		
		Data measurement	Data recording	Averaging time
amperage to wet scrubber				
4. Wet scrubber liquor flow rate	Minimum flow rate at inlet to the scrubber	Continuous	Every 15 minutes	3-hour rolling. ^a
5. Wet scrubber liquor pH	Minimum pH at scrubber outlet	Continuous	Every 15 minutes	3-hour rolling. ^a
6. Dry scrubber sorbent injection	Minimum injection rate of each sorbent	Continuous	Every 15 minutes	3-hour rolling. ^a
7. Electrostatic precipitator secondary electric power	Minimum secondary electric power, calculated from the secondary voltage and secondary current	Continuous	Every 15 minutes	3-hour rolling. ^a
8. Bag leak detection system alarm time	Alarm time <5 percent of the operating time during a 6-month period	Continuous	Each date and time of alarm start and stop	Calculate alarm time as specified in § 60.2916(f) .
9. Waste profile	The amount of each waste category burned as a percentage of total waste burned on a mass basis	Periodic	For batch units, each batch. For continuous or intermittent units, every hour	Calendar quarter.

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

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Table 3 to Subpart EEEE of Part 60—Requirements for Continuous Emission Monitoring Systems (CEMS)

As stated in [§ 60.2940](#), you must comply with the following:

For the following pollutants	Use the following span values for your CEMS	Use the following performance specifications (P.S.) in Appendix B of this part for your CEMS	If needed to meet minimum data requirements, use the following alternate methods in Appendix A of this part to collect data
1. Carbon Monoxide	125 percent of the maximum hourly potential carbon monoxide emissions of the waste combustion unit	P.S.4A	Method 10.
2. Oxygen	25 percent oxygen	P.S.3	Method 3A or 3B of Appendix A to this part, or ASME/ANSI PTC 19.10-1981 (IBR, see § 60.17) in lieu of Method 3B only.

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Table 4 to Subpart EEEE of Part 60—Summary of Reporting Requirements

As stated in [§ 60.2951](#), you must comply with the following:

Report	Due date	Contents	Reference
1. Preconstruction report	a. Prior to commencing construction	i. Statement of intent to construct;	§ 60.2952.
		ii. Anticipated date of commencement of construction;	§ 60.2952.
		iii. Documentation for siting requirements;	§ 60.2952.
		iv. Waste management plan; and	§ 60.2952.
		v. Anticipated date of initial startup.	§ 60.2952.
2. Startup notification	a. Prior to initial startup	i. Types of waste to be burned;	§ 60.2953.
		ii. Maximum design waste burning capacity;	§ 60.2953.
		iii. Anticipated maximum charge rate;	§ 60.2953.
		iv. If applicable, the petition for site-specific operating limits; and	§ 60.2953.
		v. Anticipated date of initial startup.	§ 60.2953.

Report	Due date	Contents	Reference
3. Initial test report	a. No later than 60 days following the initial performance test	i. Complete test report for the initial performance test; and ii. The values for the site-specific operating limits.	§ 60.2954. § 60.2954.
4. Annual report	a. 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	i. Company Name and address; ii. Statement and signature by the owner or operator; iii. Date of report; iv. Values for the operating limits; v. If no deviations or malfunctions were reported, a statement that no deviations occurred during the reporting period;	§§ 60.2955 and 60.2956. §§ 60.2955 and 60.2956. §§ 60.2955 and 60.2956. §§ 60.2955 and 60.2956. §§ 60.2955 and 60.2956.
		vi. Highest and lowest recorded 12-hour averages, as applicable, for carbon monoxide emissions and highest and lowest recorded 3-hour averages, as applicable, for each operating parameter recorded for the calendar year being reported;	§§ 60.2955 and 60.2956.
		vii. Information for deviations or malfunctions recorded under § 60.2949(b)(6) and (c) through (e) ;	§§ 60.2955 and 60.2956.
		viii. If a performance test was conducted during the reporting period, the results of the test;	§§ 60.2955 and 60.2956.
		ix. If a performance test was not conducted during the reporting period, a statement that the requirements of § 60.2934 (a) or (b) were met; and	§§ 60.2955 and 60.2956.
		x. Documentation of periods when all qualified OSWI unit operators were unavailable for more than 12 hours but less than 2 weeks.	§§ 60.2955 and 60.2956.
		xi. For each very small municipal waste combustion unit or institutional waste incineration unit for which you demonstrate continuous compliance according to § 60.2932(d) , if no deviations from the percentages established	§§ 60.2955 and 60.2956.

Report	Due date	Contents	Reference
		for each waste category according to the waste profile required in § 60.2932(d)(1) and the OSWI unit has been operated within the operating parameter limits, a statement that there were no deviations from the waste profile requirements percentage and the OSWI unit has been operated within the operating parameter limits.	
5. Emission limitation or operating limit deviation report	a. 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"> i. Dates and times of deviation; ii. Averaged and recorded data for those dates; iii. Duration and causes of each deviation and the corrective actions taken; iv. Copy of operating limit monitoring data and any test reports; v. Dates, times, and causes for monitor downtimes incidents; vi. Whether each deviation occurred during a period of startup, shutdown, or malfunction; and 	<p>§§ 60.2957 and 60.2958.</p>
		vii. Dates, times, and durations of any bypass of the control device.	§§ 60.2957 and 60.2958.
6. Qualified operator deviation notification	a. Within 10 days of deviation	<ul style="list-style-type: none"> i. Statement of cause of deviation; ii. Description of efforts to have an accessible qualified operator; and 	<p>§ 60.2959(a)(1).</p> <p>§ 60.2959(a)(1).</p>
		iii. The date a qualified operator will be accessible.	§ 60.2959(a)(1).
7. Qualified operation deviation status report	a. Every 4 weeks following deviation	<ul style="list-style-type: none"> i. Description of efforts to have an accessible qualified operator; ii. The date a qualified operator will be accessible; and 	<p>§ 60.2959(a)(2).</p> <p>§ 60.2959(a)(2).</p>
		iii. Request to continue operation.	§ 60.2959(a)(2).
8. Qualified operator deviation	a. Prior to resuming operation	i. Notification that you are resuming operation	§ 60.2959(b).

Report	Due date	Contents	Reference
notification of resumed operation			

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