WEST VIRGINIA SECRETARY OF STATE

MAC WARNER

ADMINISTRATIVE LAW DIVISION

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Office of West Virginia
Secretary Of State

NOTICE OF PUBLIC COMMENT PERIOD

AGENCY: Air Quality TITLE-SERIES: 45-18

RULE TYPE: Legislative Amendment to Existing Rule: Yes Repeal of existing rule: No

RULE NAME: Control of Air Pollution from Combustion of Solid Waste

CITE STATUTORY AUTHORITY: W. Va. Code § 22-5-4

COMMENTS LIMITED TO:

Oral and Written

DATE OF PUBLIC HEARING: 07/28/2020 6:00 PM

LOCATION OF PUBLIC HEARING:

Virtual. Details in Public Notice.

DATE WRITTEN COMMENT PERIOD ENDS: 07/28/2020 6:00 PM

COMMENTS MAY BE MAILED OR EMAILED TO:

NAME: SANDRA ADKINS

ADDRESS: WVDEP - DIVISION OF AIR QUALITY

601 57TH STREET SE CHARLESTON WV 25304

EMAIL: dep.comments@wv.gov

PLEASE INDICATE IF THIS FILING INCLUDES:

RELEVANT FEDERAL STATUTES OR REGULATIONS: Yes

(IF YES, PLEASE UPLOAD IN THE SUPPORTING DOCUMENTS FIELD)

INCORPORATED BY REFERENCE: Yes

(IF YES, PLEASE UPLOAD IN THE SUPPORTING DOCUMENTS FIELD)

PROVIDE A BRIEF SUMMARY OF THE CONTENT OF THE RULE:

This rule adopts standards of performance, and implements the federal emission guidelines and compliance times pursuant to §§ 111(b), 111(d) and 129 of the federal Clean Air Act to control certain designated pollutants from new and existing affected large small municipal waste combustors, small municipal waste combustion units; hospital/ medical/ infectious waste incinerators; commercial and industrial solid waste incineration units; other solid waste incineration units; and sewage sludge incineration units in West Virginia.

SUMMARIZE IN A CLEAR AND CONCISE MANNER CONTENTS OF CHANGES IN THE RULE AND A STATEMENT OF CIRCUMSTANCES REQUIRING THE RULE:

Summary of changes in the rule:

The rule is being revised to comport with the final technical amendments to the 2016 new source performance standards and emission guidelines for new and existing Commercial and Industrial Solid Waste Units (CISWI) published April 16, 2019 at 84FR15846 following requests received by the United States EPA to clarify its June 2016 final action. The federal amendments provide clarity and address implementation issues and correct inconsistencies and errors.

Revisions include: (1) updating the scope to add a reference to section 111(b) of the federal CAA, as amended and update the incorporation by reference date; (2) adding acronyms to the definitions in section 2 and adding multiple definitions from the federal counterpart regulations; (3) updating the date in the adoption of standards section 3; (4) numerous updates to the requirements for existing CISWI units in section 9 to comport with the federal counterpart emission guidelines (additional information provided below); and (5) removing authorities retained by the EPA Administrator in paragraphs 12.1.b.11 - 12.1.b.14 because they were duplicative with subsection 9.14.

Section 9 revisions to comport with the federal emission guidelines include:

Air curtain incinerators changed to ACI throughout
Continuous monitoring system changed to CMS throughout
Continuous parameter monitoring system changed to CPMS throughout
Particulate matter changed to PM throughout
Added or digital signal equivalent in references to milliamps throughout
Definitions are referenced to section 2 rather than a subsection reference throughout
Updated numbering throughout
Corrected grammatical errors throughout
Clarifying language inserted or replaced throughout
9.2.d. - ACI exemption language struck from this subdivision
9.5.c.3. - revision to operator training course completion date
9.6.d. - revision to timing of when the owner or operator is required to meet the operating limits
9.6.e. & 9.6.f. - added phrase and does not use a PM CPMS for monitoring PM compliance in the emission limitation compliance requirements
9.7.e. - added phrase except when using Method 9 and Method 22 in the performance testing requirements.
9.8.a. - added reference for kiln specific emission limit and removed the monitoring system requirement from the initial compliance requirements section.
9.8.b. - added alternative to conducting a performance test under subsection 9.7 in the initial compliance requirements.
9.9.g. - compliance with CO emission limit moved to section 9.10.o.
9.9.i. - added the phrase that do not use a wet scrubber, fabric filter with bag leak detection system, an electrostatic precipitator, particulate matter CEMS, or particulate matter CPMS to the continuous compliance requirement.
9.9.j. - revised the continuous compliance requirement for waste-burning kilns in this subdivision.

9.9.s. and 9.9.t. - removed the CEMS data specifics for data during startup and shutdown under the SO2 and NOx emission limit compliance and added initial and continuous compliance demonstration. (Added S/S language to 9.9.u)
9.9.u. - added the phrase or an integrated sorbent trap monitoring system for mercury; added initial compliance into the CEMS compliance requirements with any emission limit in section 9; and added the data, calculations, and measures for startup and shutdown.
9.10.b. - added the phrase and does not use a PM CPMS or PM CEMS for monitoring PM compliance to the fabric filter monitoring equipment and parameters requirement.
9.10.f. - added the phrase and the owner or operator does not use a PM CPMS for monitoring PM compliance to the electrostatic precipitator monitoring equipment and parameters requirement.
9.10.g. - revised the monitoring equipment and parameters requirement for waste burning kilns not equipped with a scrubber.
9.10.h. - revised the monitoring equipment and parameters requirement for demonstrating compliance with a PM emission limit to also allow a PM CPMS and also allow a PM CEMS for conducting the initial performance test.
9.10.i., 9.10.j., 9.10.k., & 9.10.l. - expanded requirements for initial and continuous compliance and provided additional detail.
9.10.m. - added electrostatic precipitators and PM CPMS to this monitoring equipment and parameters requirement.
9.10.n. - revised the PM continuous monitoring provisions in this monitoring equipment and parameters requirement subdivision.
9.10.o. - added initial compliance to the CO compliance demonstration monitoring equipment and parameters requirement subdivision and moved the startup and shutdown requirements to 9.9.u.
9.10.t. - added requirements for monitoring clinker production if the owner or operator of a waste-burning kiln complies with the production-rate based mercury limit.
9.11.b.7. - added recordkeeping requirements for monitoring clinker production in accordance with 9.10.t.
9.11.o. - added recordkeeping requirements to this subdivision if emissions are monitored with a CEMS during startup and shutdown.
9.11.x. - added requirement for records availability.
9.12.e.6. - added averaging period reporting requirement for energy recovery units.
9.12.f.1. - added an averaging period for energy recovery units and for PM CPMS in the deviation report requirements and added a CEMS deviation condition.
9.12.j. - updated the form of reports requirements in this subdivision.
9.14.j. - deleted the authority to determine whether a qualifying small power production facility or cogeneration facility is combusting homogenous waste previously retained by the EPA Administrator.
9.14.i. - added the approval of an alternative to any electronic reporting to the EPA required by section 9 to an authority retained by the EPA Administrator.

Statement of circumstances requiring the rule:

This rule is exempt from the Regulatory Moratorium of Executive Order 2-18 under condition 3(g), updating state rules to comply with federal law requirements.

The U.S. EPA approved West Virginia's request for delegation of New Source Performance Standards pursuant to §111 of the CAA on January 8, 2002. Emissions and operating requirements under §§111(d) and 129 of the CAA must be incorporated into a State 111(d)/129 Plan, and are federally enforceable upon approval by the U.S. EPA. Upon authorization and promulgation of revisions to 45 C.S.R. 18, the DAQ will submit the final rule to the U.S. EPA for approval as part of West Virginia's §111(d)/129 Plan and delegation of the federal New Source Performance Standards. Promulgation of this rule by the Legislature is necessary for the State to fulfill its responsibilities under the CAA.

The rule is being revised to comport with the final technical amendments to the 2016 new source performance standards and emission guidelines for new and existing Commercial and Industrial Solid Waste Units (CISWI) published April 16, 2019 at 84FR15846 following requests received by the United States EPA to clarify its June 2016 final action. The federal amendments provide clarity and address implementation issues and correct inconsistencies and errors.

Determination of Stringency:

A federal counterpart to this proposed rule exists. In accordance with the Secretary's recommendation, the Division of Air Quality proposes that the rule incorporate by reference the federal counterparts for new sources. Because the proposed rule incorporates by reference the federal counterparts, no determination of stringency is

required for new sources. For existing sources, the federal emission guidelines are adopted into the proposed rule. The proposed rule is no more stringent than the federal emission guidelines for existing sources.

Consultation with the Environmental Protection Advisory Council:

The Environmental Protection Advisory Council received a copy of this proposed rule in advance of the June 23 meeting to discuss this rule.

SUMMARIZE IN A CLEAR AND CONCISE MANNER THE OVERALL ECONOMIC IMPACT OF THE PROPOSED RULE:

A. ECONOMIC IMPACT ON REVENUES OF STATE GOVERNMENT:

The proposed revisions to this rule should not impact revenues of state government.

B. ECONOMIC IMPACT ON SPECIAL REVENUE ACCOUNTS:

The proposed revisions to this rule should not impact special revenue accounts.

C. ECONOMIC IMPACT OF THE RULE ON THE STATE OR ITS RESIDENTS:

The proposed revisions to this rule should not impact costs of state government beyond that resulting from currently applicable federal requirements, nor should it have an economic impact on the state or its residents.

D. FISCAL NOTE DETAIL:

Effect of Proposal	Fiscal Year		
	2020 Increase/Decrease (use "-")	2021 Increase/Decrease (use "-")	Fiscal Year (Upon Full Implementation)
1. Estimated Total Cost	0	0	0
Personal Services	0	0	0
Current Expenses	0	0	0

Repairs and Alterations	0	0	0
Assets	0	0	0
Other	0	0	0
2. Estimated Total Revenues	0	0	0

E. EXPLANATION OF ABOVE ESTIMATES (INCLUDING LONG-RANGE EFFECT):

The proposed revisions to this rule will have a minimal effect on the costs to the Division of Air Quality because they impose no additional requirements beyond current federal requirements.

In accordance with W. Va. Code §22-1A 3(c), the Secretary has determined that this rule will not result in a taking of private property within the meaning of the Constitutions of West Virginia and the United States of America.

BY CHOOSING 'YES', I ATTEST THAT THE PREVIOUS STATEMENT IS TRUE AND CORRECT.

Yes
Jason E Wandling -- By my signature, I certify that I am the person authorized to file legislative rules, in accordance with West Virginia Code §29A-3-11 and §39A-3-2.

TITLE 45
LEGISLATIVE RULE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY

SERIES 18
CONTROL OF AIR POLLUTION FROM COMBUSTION OF SOLID WASTE

§45-18-1. General.

1.1. Scope. -- This rule adopts standards of performance, and ~~establishes~~ implements the federal emission guidelines and compliance times pursuant to §§ 111(b), 111(d) and 129 of the federal Clean Air Act for the control of certain designated pollutants from the following categories of solid waste combustors, combustion units, incinerators and incineration units in West Virginia:

1.1.a. Large municipal waste combustors subject to the standards of performance promulgated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR part 60, subpart Eb;

1.1.b. Small municipal waste combustion units subject to the standards of performance promulgated by the U.S. EPA under 40 CFR part 60, subpart AAAA;

1.1.c. Hospital~~/~~, medical~~/~~, and infectious waste incinerators subject to the standards of performance promulgated by the U.S. EPA under 40 CFR part 60, subpart Ec, or the emission guidelines and compliance times promulgated by the U.S. EPA under 40 CFR part 60, subpart Ce and set forth in section 7 below;

1.1.d. Commercial and industrial solid waste incineration units subject to the standards of performance promulgated by the U.S. EPA under 40 CFR part 60, subpart CCCC, or the emission guidelines and compliance times promulgated by the U.S. EPA under 40 CFR part 60, subpart DDDD and set forth in section 9 below;

1.1.e. Other solid waste incineration units subject to the standards of performance promulgated by the U.S. EPA under 40 CFR part 60, subpart EEEE, and

1.1.f. Sewage sludge incineration units subject to the standards of performance promulgated by the U.S. EPA under 40 CFR part 60, subpart LLLL.

1.2. Authority. -- W. Va. Code § 22-5-4.

1.3. Filing Date. -- ~~March 22, 2018~~.

1.4. Effective Date. -- ~~June 1, 2018~~.

1.5. Sunset provision. -- Does not apply.

1.6. This rule codifies general procedures and criteria to implement a program of specific standards of performance, emission guidelines and compliance times for solid waste combustors, combustion units, incinerators and incineration units set forth in the Code of Federal Regulations and as listed below in Tables 45-18A, 45-18B, 45-18C, 45-18D, 45-18E, 45-18F, 45-18G, 45-18H, 45-18I, 45-18J, 45-18K, 45-18L and 45-18M.

~~1.6~~ 1.7. Neither compliance with the provisions of this rule nor the absence of specific language to cover particular situations constitutes approval or implies consent or condonation of any emission that is released in any locality in such a manner or amount as to cause or contribute to statutory air pollution. Neither does it exempt nor excuse any person from complying with other applicable laws, ordinances,

regulations or orders of governmental entities having jurisdiction over the combustion of solid waste.

~~1.7~~ 1.8. Incorporation by Reference. -- Federal Counterpart Regulation. The Secretary has determined that a federal counterpart regulation exists. In accordance with the Secretary's recommendation, and with limited exception, this rule incorporates by reference 40 CFR part 60, subparts Eb, Ec, AAAA, CCCC, EEEE and LLLL effective ~~June 1, 2017~~ June 1, 2020.

§45-18-2. Definitions.

2.1. "Administrator" means the Administrator of the United States Environmental Protection Agency (U.S. EPA) or his or her designated representative.

2.2. "Air curtain incinerator" or "ACI" for the purpose of section 9 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.

2.3. "Bag leak detection system" for the purpose of section 9 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.

2.4. "Cd" means Cadmium.

2.5. "CEMS" or "continuous emission monitoring system" for the purpose of section 9 means the total equipment that may be required to meet the data acquisition and availability requirements used to sample, condition (if applicable), analyze, and provide a record of emissions.

2.6. "CEMS data during startup and shutdown" for the purpose of section 9 means the following:

2.6.a. For incinerators and small remote incinerators: CEMS data collected during the first hours of operation of a CISWI startup from a cold start until waste is fed into 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;

2.6.b. 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

2.6.c. 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.

2.7. "Chemical recovery unit" for the purpose of section 9 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:

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

2.7.b. Units burning only spent sulfuric acid used to produce virgin sulfuric acid;

2.7.c. Units burning only wood or coal feedstock for the production of charcoal;

2.7.d. Units burning only manufacturing byproduct streams/residue containing catalyst metals that are reclaimed and reused as catalysts or used to produce commercial grade catalysts;

2.7.e. Units burning only coke to produce purified carbon monoxide that is used as an intermediate in the production of other chemical compounds;

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

2.7.g. Units burning only photographic film to recover silver.

2.8. "CFR" or "C.F.R." means the Code of Federal Regulations ~~published by the Office of the Federal Register, National Archives and Records Service, General Services Administration~~.

~~2.3~~ 2.9. "Clean Air Act" ~~or~~ ("CAA") means the federal Clean Air Act, as amended, 42 U.S.C. § 7401, et seq.

2.10. "CMS" or "continuous monitoring system" for the purpose of section 9 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.

~~2.4~~ 2.11. "Commercial and industrial solid waste incineration unit", "CISWI", or "CISWI unit" means any distinct operating unit of any commercial or industrial facility that combusts, or has combusted in the preceding six 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 40 CFR § 241.2 that have been discarded, and the owner or operator does not keep and produce records as required by subdivision 9.11.u, the operating unit is a CISWI unit. While not all CISWI units will include all of the following components, a CISWI unit includes, but is not limited to, the solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the solid waste hopper (if applicable) and extends through two areas: the combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and the combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. The CISWI unit includes all ash handling systems connected to the bottom ash handling system.

2.12. "HCl" means hydrogen chloride.

2.13. "Hg" means mercury.

~~2.5~~ 2.14. "Hospital~~/~~, medical~~/~~, and infectious waste incinerator" or "HMIWI unit" means any device that combusts any amount of hospital waste or medical/infectious waste.

~~2.6~~ 2.15. "Municipal waste combustor unit" or "municipal waste combustor" means any setting or equipment that combusts solid, liquid or gasified municipal solid waste including, but not limited to, field-erected incinerators (with or without heat recovery), modular incinerators (starved-air or excess-air), boilers (i.e., steam generating units), furnaces (whether suspension-fired, grate-fired, mass-fired, air curtain incinerators, or fluidized bed-fired), and pyrolysis/combustion units.

~~2.6.a~~ 2.15.a. Municipal waste combustors do not include:

~~2.6.a.1~~ 2.15.a.1. pyrolysis/combustion units located at a plastics/rubber recycling unit as specified in 40 CFR § 60.50b(m);

~~2.6.a.2~~ 2.15.a.2. cement kilns firing municipal solid waste as specified in 40 CFR § 60.50b(p);

~~2.6.a.3~~ 2.15.a.3. internal combustion engines, gas turbines, or other combustion devices that combust landfill gases collected by landfill gas collection systems.

~~2.6.b~~ 2.15.b. The municipal waste combustor unit includes, but is not limited to, the municipal solid waste fuel feed system, grate system, flue gas system, bottom ash system, and the combustor water system. The municipal waste combustor boundary starts at the municipal solid waste pit or hopper and extends through:

~~2.6.b.1~~ 2.15.b.1. The combustor flue gas system, which ends immediately following the heat recovery equipment or, if there is no heat recovery equipment, immediately following the combustion chamber;

~~2.6.b.2~~ 2.15.b.2. The combustor bottom ash system, which ends at the truck loading station or similar ash handling equipment that transfer the ash to final disposal, including all ash handling systems that are connected to the bottom ash handling system; and

~~2.6.b.3~~ 2.15.b.3. The combustor water system, which starts at the feed water pump and ends at the piping exiting the steam drum or superheater.

2.16. "NO_X" means nitrogen oxides.

~~2.7~~ 2.17. "Other solid waste incineration unit" or "OSWI unit" means either a very small municipal waste combustion unit or an institutional waste incineration unit. Unit types listed in 40 CFR § 60.2887 are not OSWI units. 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:

~~2.7.a~~ 2.17.a. The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and

~~2.7.b~~ 2.17.b. 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.

2.18. "Oxygen analyzer system" for the purposes of section 9 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/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.

2.19. "Pb" means lead.

~~2.8~~ 2.20. "Person" means any and all persons, natural or artificial, including the state of West Virginia or any other state, the United States of America, any municipal, statutory, public or private corporation organized or existing under the laws of this or any other state or country, and any firm, partnership or association of whatever nature.

2.21. "PM" means particulate matter.

~~2.9~~ 2.22. "Secretary" means the Secretary of the Department of Environmental Protection or ~~such~~ other person to whom the Secretary has delegated authority or duties pursuant to W. Va. Code §§ 22-1-6 or 22-1-8.

2.23. "Shutdown" for the purpose of section 9 means, for incinerators and small, remote incinerators, the period of time after all waste has been combusted in the primary chamber.

2.24. "SO_2" means sulfur dioxide.

~~2.10~~ 2.25. "Standard Metropolitan Statistical Area" means any areas listed in OMB Bulletin No. 93-17 entitled "Revised Statistical Definitions for Metropolitan Areas" dated June 30, 1993.

2.26. "Startup period" for the purpose of section 9 means for incinerators and small, remote incinerators, the period of time between the activation of the system and the first charge to the unit.

~~2.11~~ 2.27. Other words and phrases used in this rule, unless otherwise indicated, shall have the meaning ascribed to them in 40 CFR part 60 subparts A, B, Ce, Eb, Ec, AAAA, CCCC, DDDD, EEEE and LLLL as applicable. Words and phrases not defined therein shall have the meaning given to them in the federal Clean Air Act.

§45-18-3. Adoption of standards.

3.1. The Secretary hereby adopts and incorporates by reference the definitions of 40 CFR part 60, subparts A and B, the standards of performance and definitions set forth in 40 CFR part 60, subparts Eb, Ec, AAAA, CCCC, EEEE and LLLL, including any applicable reference methods, performance specifications and other test methods which are appended to those standards and contained in those subparts, effective ~~June 1, 2017~~ June 1, 2020.

§45-18-4. Requirements for new large municipal waste combustors.

4.1. Requirements for new LMWC units. -- The owner or operator of a new LMWC unit under subsection 4.2 shall comply with all applicable standards of performance, requirements, and provisions of 40 CFR part 60 subpart Eb, including any reference methods, performance specifications, and other test methods associated with Subpart Eb. No person shall construct or operate, or cause to be constructed or operated, a new LMWC unit that results in a violation of 40 CFR part 60, subpart Eb or this rule.

4.2. Applicability. -- The owner or operator of a LMWC unit that meets the following criteria is subject to the requirements for new LMWC units set forth in this section. A new LMWC unit is a LMWC unit that either:

4.2.a. Commenced construction after September 20, 1994; or

4.2.b. Commenced modification or reconstruction after June 19, 1996.

§45-18-5. Requirements for new small municipal waste combustion units.

5.1. Requirements for new SMWC units. -- The owner or operator of a new SMWC unit under this section shall comply with all applicable standards of performance, requirements, and provisions of 40 CFR part 60 subpart AAAA, including any reference methods, performance specifications, and other test methods associated with subpart AAAA. No person shall construct or operate, or cause to be constructed or operated, a new SMWC unit that results in a violation of 40 CFR part 60, subpart AAAA or this rule.

5.2. Applicability. -- The owner or operator of a SMWC unit that meets the following criteria is subject to the requirements for new SMWC units set forth in this section. A new SMWC unit is a SMWC unit that either:

5.2.a. Commenced construction after August 30, 1999; or

5.2.b. Commenced modification or reconstruction after June 6, 2001.

§45-18-6. Requirements for new hospital/, medical/, and infectious waste incinerators.

6.1. Requirements for new HMIWI units. -- The owner or operator of a new HMIWI unit under this section shall comply with all applicable standards of performance, requirements, and provisions of 40 CFR part 60, subpart Ec, including any reference methods, performance specifications, and other test methods associated with subpart Ec. No person shall construct, reconstruct, modify or operate, or cause to be constructed, reconstructed, modified or operated a new HMIWI unit that results in a violation of 40 CFR part 60, subpart Ec or this rule.

6.2. Applicability. -- The owner or operator of a HMIWI unit that meets the following criteria is subject to the requirements for new HMIWI units set forth in this section 6. A new HMIWI unit is a HMIWI unit that either:

6.2.a. Commenced construction after December 1, 2008; or

6.2.b. Commenced modification after April 6, 2010.

6.3. Physical or Operational Changes. Physical or operational changes made to an HMIWI unit to comply with the emission guidelines in section 7 below and 40 CFR part 60, subpart Ce do not qualify as a reconstruction or modification under this section 6 and 40 CFR part 60, subpart Ec.

§45-18-7. Requirements for existing hospital/, medical/, and infectious waste incinerators.

7.1. Requirements for existing HMIWI units. -- The owner or operator of an existing HMIWI unit under this section shall comply with the applicable emission guidelines, compliance times, requirements, and provisions of 40 CFR part 60, subpart Ce set forth in this section 7 and below in Tables 45-18A, 45-18B, 45-18C and 45-18D, including any reference methods, performance specifications, and other test methods associated with subpart Ce. No person shall reconstruct, modify or operate, or cause to be reconstructed, modified or operated, an existing HMIWI unit that results in a violation of 40 CFR part 60 subpart Ce, or this rule.

7.2. Applicability. -- HMIWI units that are designated facilities under subdivision 7.2.a are subject to the requirements for existing HMIWI units set forth herein.

7.2.a. Designated facilities. -- Except as provided in subdivisions 7.2.b through 7.2.h, the designated facility to which the emissions guidelines apply is each individual HMIWI unit in West Virginia:

7.2.a.1. For which construction was commenced on or before June 20, 1996, or for which modification was commenced on or before March 16, 1998; or

7.2.a.2. For which construction was commenced after June 20, 1996 but no later than December 1, 2008, or for which modification is commenced after March 16, 1998 but no later than April 6, 2010.

7.2.b. A combustor is not subject to this section during periods when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned, provided the owner or operator of the combustor:

7.2.b.1. Notifies the Secretary of an exemption claim; and

7.2.b.2. Keeps records on a calendar quarter basis of the periods of time when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned.

7.2.c. Any co-fired combustor is not subject to this section if the owner or operator of the co-fired combustor:

7.2.c.1. Notifies the Secretary of an exemption claim;

7.2.c.2. Provides an estimate of the relative weight of hospital waste, medical/infectious waste, and other fuels and/or wastes to be combusted; and

7.2.c.3. Keeps records on a calendar quarter basis of the weight of hospital waste and medical/infectious waste combusted and the weight of all other fuels and wastes combusted at the co-fired combustor.

7.2.d. Units not subject to this section:

7.2.d.1. Any combustor required to have a permit under Section 3005 of the Solid Waste Disposal Act;

7.2.d.2. Any combustor which meets the applicability requirements under 40 CFR part 60, subparts Cb, Ea, or Eb (standards or guidelines for certain municipal waste combustors);

7.2.d.3. Any pyrolysis unit; and

7.2.d.4. Cement kilns firing hospital waste and/or medical/infectious waste.

7.2.e. Physical or operational changes made to an existing HMIWI unit solely for the purpose of complying with emission guidelines under this section are not considered a modification and do not result in an existing HMIWI unit becoming subject to the provisions of 40 CFR part 60, subpart Ec.

7.2.f. On or before September 15, 2000, the owner or operator of an existing HMIWI unit shall operate pursuant to a Title V permit in accordance with the requirements of 45CSR30.

7.2.g. Designated facilities under paragraph 7.2.a.1 are subject to the requirements of 40 CFR part 62, subpart XX.

7.3. Emissions guidelines.

7.3.a. The owner or operator of an existing HMIWI unit shall comply with the following emissions limits as applicable:

7.3.a.1. For a designated facility set forth in paragraph 7.2.a.1 subject to the emissions guidelines, the requirements listed below in Table 45-18A, except as provided in subdivision 7.3.b;

7.3.a.2. For a designated facility set forth in paragraph 7.2.a.1 subject to the emissions guidelines, the requirements listed in Table 45-18B, except as provided in subdivision 7.3.b;

7.3.a.3. For a designated facility set forth in paragraph 7.2.a.2, the more stringent of the requirements listed in Table 45-18B and Table 1A of 40 CFR part 60, subpart Ec.

7.3.b. The owner or operator of any small HMIWI unit constructed on or before June 20, 1996, which is located more than 50 miles from the boundary of the nearest Standard Metropolitan Statistical Area and which burns less than 2,000 pounds per week of hospital waste and medical/infectious waste shall comply with emissions limits in paragraphs 7.3.b.1 and 7.3.b.2, as applicable. The 2,000 pounds per week limitation does not apply during performance tests.

7.3.b.1. For a designated facility under paragraph 7.2.a.1 subject to the emissions guidelines, the requirements listed in Table 45-18C; and

7.3.b.2. For a designated facility under paragraph 7.2.a.1 subject to the emissions the requirements listed in Table 45-18D.

7.3.c. The owner or operator of any existing HMIWI unit shall comply with the following stack opacity requirements, as applicable:

7.3.c.1. For a designated facility under paragraph 7.2.a.1 subject to the emissions, the requirements in 40 CFR § 60.52c(b)(1); and

7.3.c.2. For a designated facility under paragraph 7.2.a.1 subject to the emissions guidelines and a designated facility under paragraph 7.2.a.2, the requirements in 40 CFR § 60.52c(b)(2).

7.4. Operator training and qualification guidelines. -- The owner or operator of an existing HMIWI unit shall comply with the operator training and qualification requirements specified in 40 CFR § 60.53c:

7.4.a. For a designated facility under paragraph 7.2.a.1, by July 28, 2001, and

7.4.b. For a designated facility under paragraph 7.2.a.2, at the time of initial facility start-up.

7.5. Waste management guidelines. -- The owner or operator of an existing HMIWI unit under paragraphs 7.2.a.1 and 7.2.a.2 shall comply with the waste management plan specified in 40 CFR § 60.55c within one year after the date of U.S. EPA's approval of the 111(d)/129 state plan revision for HMIWI units under 40 CFR part 60, subpart Ce requirements.

7.6. Inspection guidelines.

7.6.a. The owner or operator of each small HMIWI unit subject to the emissions limits under subdivision 7.3.b and each HMIWI unit subject to the emissions limits under paragraphs 7.3.a.2 and 7.3.a.3 shall perform an initial equipment inspection within one year after the date of U.S. EPA's approval of the 111(d)/129 state plan revision for HMIWI units under 40 CFR part 62, subpart XX, and the related provisions of 40 CFR part 60, subpart Ce. The initial equipment inspection shall include the following:

7.6.a.1. Inspection of all burners, pilot assemblies, and pilot sensing devices for proper operation and cleaning of pilot flame sensor, as necessary;

7.6.a.2. Ensuring proper adjustment of primary and secondary chamber combustion air, and

adjust as necessary;

7.6.a.3. Inspection of hinges and door latches and lubrication as necessary;

7.6.a.4. Inspection of dampers, fans, and blowers for proper operation;

7.6.a.5. Inspection of HMIWI unit door and door gaskets for proper sealing;

7.6.a.6. Inspection of motors for proper operation;

7.6.a.7. Inspection of primary chamber refractory lining; cleaning and repairing or replacing lining as necessary;

7.6.a.8. Inspection of incinerator shell for corrosion and hot spots;

7.6.a.9. Inspection of secondary and tertiary chamber and stack, cleaning as necessary;

7.6.a.10. Inspection of mechanical loader, including limit switches, for proper operation, if applicable;

7.6.a.11. Visual inspection of waste bed (grates), and repairing or sealing, as appropriate;

7.6.a.12. For the burn cycle that follows the inspection, documentation that the incinerator is operating properly and making any necessary adjustments;

7.6.a.13. Inspection of air pollution control device(s) for proper operation, if applicable;

7.6.a.14. Inspection of waste heat boiler systems to ensure proper operation, if applicable;

7.6.a.15. Inspection of bypass stack components;

7.6.a.16. Ensuring proper calibration of thermocouples, sorbent feed systems and any other monitoring equipment; and

7.6.a.17. Generally observing that the equipment is maintained in good operating condition.

7.6.b. Within ten operating days following an equipment inspection, all necessary repairs shall be completed unless the owner or operator obtains written approval from the Secretary establishing a date whereby all necessary repairs of the designated facility shall be completed.

7.6.c. The owner or operator of each small HMIWI unit subject to the emissions limits under subdivision 7.3.b and each HMIWI unit subject to the emissions limits under paragraphs 7.3.a.2 and 7.3.a.3 shall perform an equipment inspection annually (no more than 12 months following the previous annual equipment inspection), as outlined in subdivision 7.6.a.

7.6.d. The owner or operator of each small HMIWI unit subject to the emissions limits under paragraph 7.3.b.2 and each HMIWI unit subject to the emissions limits under paragraphs 7.3.a.2 and 7.3.a.3 shall perform an initial air pollution control device inspection, as applicable, within one year following approval of the 111(d)/129 state plan revision for HMIWI units under 40 CFR part 62, subpart XX, and the related provisions of 40 CFR part 60, subpart Ce. The initial air pollution control device inspection shall include the following:

7.6.d.1. Inspect air pollution control device(s) for proper operation, if applicable;

7.6.d.2. Ensure proper calibration of thermocouples, sorbent feed systems, and any other

monitoring equipment; and

7.6.d.3. Generally observe that the equipment is maintained in good operating condition.

7.6.e. Within ten operating days following an air pollution control device inspection under subdivision 7.6.d, the owner or operator shall complete all necessary repairs unless the owner or operator obtains written approval from the Secretary establishing a date whereby the owner or operator shall complete all necessary repairs of the designated facility.

7.6.f. The owner or operator of each small HMIWI unit subject to the emissions limits under paragraph 7.3.b.2 and each HMIWI unit subject to the emissions limits under paragraphs 7.3.a.2 and 7.3.a.3 shall perform an air pollution control device inspection, as applicable, annually (no more than 12 months following the previous annual air pollution control device inspection), as outlined in subdivision 7.6.d.

7.7. Compliance, performance testing, and monitoring guidelines.

7.7.a. Except as provided in subdivision 7.7.b, the owner or operator of a HMIWI unit shall comply with the requirements for compliance and performance testing listed in 40 CFR § 60.56c, with the following exclusions:

7.7.a.1. For a designated facility under paragraph 7.2.a.1 subject to the emissions limits in paragraph 7.3.a.1, the test methods listed in 40 CFR §§ 60.56c(b)(7) and (8), the fugitive emissions testing requirements under 40 CFR §§ 60.56c(b)(14) and (c)(3), the CO CEMS requirements under 40 CFR § 60.56c(c)(4), and the compliance requirements for monitoring listed in 40 CFR §§ 60.56c(c)(5)(ii) through (v), (c)(6), (c)(7), (e)(6) through (10), (f)(7) through (10), (g)(6) through (10), and (h).

7.7.a.2. For a designated facility under paragraphs 7.2.a.1 and 7.2.a.2 subject to the emissions limits in paragraphs 7.3.a.2 and 7.3.a.3, the annual fugitive emissions testing requirements under 40 CFR § 60.56c(c)(3), the CO CEMS requirements under 40 CFR § 60.56c(c)(4), and the compliance requirements for monitoring listed in 40 CFR §§ 60.56c(c)(5)(ii) through (v), (c)(6), (c)(7), (e)(6) through (10), (f)(7) through (10), and (g)(6) through (10). Sources subject to the emissions limits under paragraphs 7.3.a.2 and 7.3.a.3 may, however, elect to use CO CEMS as specified under 40 CFR § 60.56c(c)(4) or bag leak detection systems as specified under 40 CFR § 60.57c(h).

7.7.b. Except as provided in paragraphs 7.7.b.1 and 7.7.b.2, the owner or operator of a small HMIWI unit subject to the emissions limits under subdivision 7.3.b shall comply with the performance testing requirements listed in 40 CFR § 60.56c. The 2,000 pounds per week limitation under subdivision 7.3.b does not apply during performance tests.

7.7.b.1. For a designated facility under paragraph 7.2.a.1 subject to the emissions limits under paragraph 7.3.b.1, the test methods listed in 40 CFR §§ 60.56c(b)(7), (8), (12), (13) (Pb and Cd), and (14), the annual PM, CO, and HCl emissions testing requirements under 40 CFR § 60.56c(c)(2), the annual fugitive emissions testing requirements under 40 CFR § 60.56c(c)(3), the CO CEMS requirements under 40 CFR § 60.56c(c)(4). The compliance requirements for monitoring listed in 40 CFR §§ 60.56c(c)(5) through (7), and (d) through (k) do not apply.

7.7.b.2. For a designated facility under paragraph 7.2.a.2 subject to the emissions limits under paragraph 7.3.b.2, the annual fugitive emissions testing requirements under 40 CFR § 60.56c(c)(3), the CO CEMS requirements under 40 CFR § 60.56c(c)(4), and the compliance requirements for monitoring listed in 40 CFR §§ 60.56c(c)(5)(ii) through (v), (c)(6), (c)(7), (e)(6) through (10), (f)(7) through (10), and (g)(6) through (10) do not apply. Sources subject to the emissions limits under paragraph 7.3.b.2 may, however, elect to use CO CEMS as specified under 40 CFR § 60.56c(c)(4) or bag leak detection systems as specified under 40 CFR § 60.57c(h).

7.7.c. The owner or operator of a small HMIWI unit subject to the emissions limits under

subdivision 7.3.b that is not equipped with an air pollution control device shall comply with the following compliance and performance testing requirements:

7.7.c.1. Establishment of maximum charge rate and minimum secondary chamber temperature as site-specific operating parameters during the initial performance test to determine compliance with applicable emission limits;

7.7.c.2. Following the date on which the initial performance test is completed or is required to be completed under 40 CFR § 60.8, whichever date comes first, the small HMIWI unit shall not operate above the maximum charge rate or below the minimum secondary chamber temperature measured as three-hour rolling averages (calculated each hour as the average of the previous three operating hours) at all times. Operating parameter limits do not apply during performance tests. Operation above the maximum charge rate or below the minimum secondary chamber temperature shall constitute a violation of the established operating parameter(s).

7.7.c.3. Operation above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a three-hour rolling average) simultaneously shall constitute a violation of the PM, CO and dioxin/furan emission limits, except as provided in paragraph 7.7.c.4; and

7.7.c.4. The owner or operator of a small HMIWI unit may conduct a repeat performance test within 30 days of violation of applicable operating parameter(s) to demonstrate that the small HMIWI unit is not in violation of the applicable emission limit(s). Repeat performance tests conducted pursuant to this paragraph shall be conducted under process and control device operating conditions duplicating as nearly as possible those that indicated a violation under paragraph 7.7.c.3;

7.7.d. The owner or operator of a HMIWI unit subject to the emissions limits under subdivisions 7.3.a and 7.3.b shall comply with the requirements for monitoring listed in 40 CFR § 60.57c, except as provided for under subdivision 7.7.e.

7.7.e. The owner or operator of a small HMIWI unit subject to the emissions limits under subdivision 7.3.b that is not equipped with an air pollution control device shall comply with the following monitoring requirements:

7.7.e.1. Installation, calibration (to manufacturer's specifications), maintenance and operation of a device for measuring and recording the temperature of the secondary chamber on a continuous basis, the output of which shall be recorded, at a minimum once every minute throughout operation;

7.7.e.2. Installation, calibration (to manufacturer's specifications), maintenance and operation of a device that automatically measures and records the date, time, and weight of each charge fed into the HMIWI unit;

7.7.e.3. The owner or operator of a HMIWI unit shall obtain monitoring data at all times during HMIWI unit operation except during periods of monitoring equipment malfunction, calibration or repair. At a minimum, the owner or operator shall obtain valid monitoring data for 75% of the operating hours per day and for 90% of the operating hours per calendar quarter that the HMIWI unit is combusting hospital waste or medical/infectious waste.

7.7.f. The owner or operator of a designated facility under paragraphs 7.2.a.1 or 7.2.a.2 subject to emissions limits under paragraphs 7.3.a.2, 7.3.a.3 or 7.3.b.2 may use the results of previous emissions tests to demonstrate compliance with the emissions limits, provided that the conditions in paragraphs 7.7.f.1 through 7.7.f.3 are met:

7.7.f.1. The designated facility's previous emissions tests were conducted using the applicable procedures and test methods listed in 40 CFR § 60.56c(b). Previous emissions test results obtained using EPA-accepted voluntary consensus standards are also acceptable.

7.7.f.2. The HMIWI unit at the designated facility is currently operated in a manner (e.g., with charge rate, secondary chamber temperature, etc.) that would be expected to result in the same or lower emissions than observed during the previous emissions test(s). The HMIWI unit may not have been modified such that emissions would be expected to exceed (notwithstanding normal test-to-test variability) the results from previous emissions test(s).

7.7.f.3. The previous emissions test(s) were conducted in 1996 or later.

7.8. Reporting and Recordkeeping Guidelines.

7.8.a. Except as provided in paragraphs 7.8.a.1 and 7.8.a.2, the owner or operator of an existing HMIWI unit shall comply with the reporting and recordkeeping requirements listed in 40 CFR §§ 60.58c(b) through (g).

7.8.a.1. For a designated facility under paragraph 7.2.a.1 subject to emissions limits under paragraphs 7.3.a.1 or 7.3.b.1, excluding 40 CFR §§ 60.58c(b)(2)(ii) (fugitive emissions), (b)(2)(viii) (NO_X reagent), (b)(2)(xvii) (air pollution control device inspections), (b)(2)(xviii) (bag leak detection system alarms), (b)(2)(xix) (CO CEMS data), and (b)(7) (siting documentation).

7.8.a.2. For a designated facility under paragraphs 7.2.a.1 or 7.2.a.2 subject to emissions limits under paragraphs 7.3.a.2, 7.3.a.3 or 7.3.b.2, excluding 40 CFR §§ 60.58c(b)(2)(xviii) (bag leak detection system alarms), (b)(2)(xix) (CO CEMS data), and (b)(7) (siting documentation).

7.8.b. The owner or operator of each HMIWI unit subject to the emissions limits under subsection 7.3 shall:

7.8.b.1. As specified in subsection 7.6, maintain records of the annual equipment inspections that are required for each HMIWI unit subject to the emissions limits under paragraphs 7.3.a.2, 7.3.a.3 and subdivision 7.3.b; the annual air pollution control device inspections that are required for each HMIWI unit subject to the emissions limits under paragraphs 7.3.a.2, 7.3.a.3 and 7.3.b.2; any required maintenance; and any repairs not completed within ten days of an inspection or repair date approved by the Secretary; and

7.8.b.2. Submit an annual report containing information recorded under paragraph 7.8.b.1 no later than 60 days following the year in which data were collected. The owner or operator shall send subsequent reports no later than 12 calendar months following the previous report (once the unit is subject to permitting requirements under 45CSR30, the owner or operator shall submit these reports semiannually). The owner or operator shall sign and certify the report in accordance with subdivision 7.8.c.

7.8.c. Where reports are required to be submitted to the Secretary under the terms of a permit issued pursuant to 45CSR13, 45CSR14, 45CSR19 or 45CSR30, the owner or operator shall sign and certify the reports in accordance with the requirements of the applicable permitting rule. Where reports are required to be submitted to the Secretary under this rule, and no permit is in effect under 45CSR13, 45CSR14, 45CSR19 or 45CSR30, the facilities manager shall sign the report, which shall contain a certification stating that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

7.9. Compliance times.

7.9.a. Except as provided in subdivisions 7.9.b, 7.9.c and 7.9.d, on or after July 28, 2001, the owner or operator of any existing HMIWI unit subject to the requirements of 40 CFR part 62, subpart XX, and the related provisions of 40 CFR part 60, subpart Ce, shall be in compliance with all applicable provisions of this section.

7.9.b. No later than November 28, 2000, the owner or operator of an existing HMIWI unit required

to install air pollution control equipment shall submit a compliance plan and schedule subject to the approval of the Secretary that meets the following criteria:

7.9.b.1. No later than July 28, 2001, if a facility that plans to install air pollution control equipment other than a dry scrubber followed by a fabric filter, a wet scrubber or dry scrubber followed by a fabric filter and a wet scrubber, the facility shall submit a petition for site specific operating parameters under 40 CFR § 60.56c(i) to the Administrator and the Secretary;

7.9.b.2. The facility shall obtain, no later than July 28, 2001, services of an architectural and engineering firm regarding air pollution device(s);

7.9.b.3. The facility shall order, no later than January 28, 2002, design drawings of an air pollution device(s);

7.9.b.4. The facility shall order, no later than January 28, 2002, air pollution device(s);

7.9.b.5. The facility shall initiate, no later than July 28, 2002, site preparation for installation of the air pollution device(s);

7.9.b.6. The facility shall conduct, no later than April 28, 2002, initial startup of the air pollution device(s);

7.9.b.7. The facility shall conduct, no later than April 28, 2002, initial compliance test(s) of the air pollution device(s); and

7.9.b.8. No later than September 16, 2002, the owner or operator of an existing HMIWI unit shall not allow or cause to be allowed a HMIWI unit to be operated except in compliance with all applicable provisions of this section.

7.9.c. An owner or operator of an existing HMIWI unit who submits in writing to the Secretary a request for an extension to comply beyond the compliance dates under subdivision 7.9.b, shall submit to the Secretary no later than April 28, 2001, the following information:

7.9.c.1. An analysis to support the need for an extension, including an explanation of why a time period up to three years after July 28, 2000 is not sufficient time to comply with subdivision 7.9.b;

7.9.c.2. A demonstration of the feasibility to transport the waste offsite to a commercial medical waste treatment and disposal facility on a temporary or permanent basis; and

7.9.c.3. Measurable and enforceable incremental steps of progress to be taken towards compliance with the emission limits contained in Table 45-18A, or Table 45-18C for small rural units, as applicable.

7.9.d. The Secretary will notify the owner or operator of an existing HMIWI, in writing, of his or her decision either to grant or deny the request for extension. The owner or operator shall comply with one of the following:

7.9.d.1. If the request for extension is denied, the owner or operator shall submit a compliance plan in accordance with subdivision 7.9.b no later than 30 days after denial of the request for extension, or July 28, 2001, whichever is later; or

7.9.d.2. If the request for extension is granted, the owner or operator shall submit a compliance plan and schedule commensurate with the granted extension no later than 30 days after the date the request for extension was granted.

7.9.d.3. If an extension is granted by the Secretary, the owner or operator shall comply in an expeditious manner with the 111(d)/129 plan requirements of Part 62, Subpart XX, §§ 62.12150 through 62.12152 on or before the date three years after U.S. EPA approval of the West Virginia 111(d)/129 plan (but not later than September 16, 2002), for the emissions guidelines, and on or before the date three years after U.S. EPA approval of an amended West Virginia 111(d)/129 plan (but not later than October 6, 2014), for the emissions guidelines.

7.9.e. Except as provided in subdivisions 7.9.f, 7.9.g and 7.9.h, one year after the effective date of U.S. EPA's approval of the 111(d)/129 state plan revision for HMIWI units, the owner or operator of any existing HMIWI unit subject to the requirements of 40 CFR part 62, subpart XX, and the related provisions of 40 CFR part 60, subpart Ce shall be in compliance with all applicable provisions of this section.

7.9.f. No later than 120 days after the effective date of U.S. EPA's approval of the 111(d)/129 state plan revision for HMIWI units, the owner or operator of an existing HMIWI unit required to install air pollution control equipment shall submit an expeditious compliance plan and schedule subject to the approval of the Secretary that meets the following criteria:

7.9.f.1. No later than 12 months after the effective date of U.S. EPA's approval of the 111(d)/129 state plan revision for HMIWI units, a facility that plans to install air pollution control equipment other than a dry scrubber followed by a fabric filter, a wet scrubber or dry scrubber followed by a fabric filter and a wet scrubber shall submit a petition for site specific operating parameters under 40 CFR § 60.56c(i) to the Administrator and the Secretary;

7.9.f.2. The facility shall obtain, no later than 12 months after the effective date of U.S. EPA's approval of the 111(d)/129 state plan revision for HMIWI units, services of an architectural and engineering firm regarding air pollution device(s);

7.9.f.3. The facility shall order, no later than 18 months after the effective date of U.S. EPA's approval of the 111(d)/129 state plan revision for HMIWI units, design drawings of an air pollution device(s);

7.9.f.4. The facility shall order, no later than 18 months after the effective date of U.S. EPA's approval of the 111(d)/129 state plan revision for HMIWI units, air pollution device(s);

7.9.f.5. The facility shall initiate, no later than 18 months after the effective date of U.S. EPA's approval of the 111(d)/129 state plan revision for HMIWI units, site preparation for installation of the air pollution device(s);

7.9.f.6. The facility shall conduct, no later than 30 months after the effective date of U.S. EPA's approval of the 111(d)/129 state plan revision for HMIWI units, initial startup of the air pollution device(s);

7.9.f.7. The facility shall conduct, no later than 30 months after the effective date of U.S. EPA's approval of the 111(d)/129 state plan revision for HMIWI units, initial compliance test(s) of the air pollution device(s); and

7.9.f.8. No later than October 6, 2014, the owner or operator of an existing HMIWI unit shall not allow or cause to be allowed a HMIWI unit to be operated except in compliance with all applicable provisions of this section.

7.9.g. An owner or operator of an existing HMIWI unit who submits in writing to the Secretary a request for an extension to comply beyond the compliance dates under subdivision 7.9.f. shall submit to the Secretary no later than nine months after the effective date of U.S. EPA's approval of the 111(d)/129 state plan revision for HMIWI units, the following information:

7.9.g.1. An analysis to support the need for an extension, including an explanation of why a time period up to three years after the effective date of U.S. EPA's approval of the 111(d)/129 state plan revision for HMIWI units is sufficient time to comply with this section, while one year after the effective date of U.S. EPA's approval of the 111(d)/129 state plan revision for HMIWI units is not sufficient;

7.9.g.2. A demonstration of the feasibility to transport the waste offsite to a commercial medical waste treatment and disposal facility on a temporary or permanent basis; and

7.9.g.3. Measurable and enforceable incremental steps of progress to be taken towards compliance with the emission limits contained in Table 45-18B, or Table 45-18D for small rural units, as applicable.

7.9.h. The Secretary will notify the owner or operator of an existing HMIWI, in writing, of his or her decision either to grant or deny the request for extension. The owner or operator shall comply with one of the following:

7.9.h.1. If the request for extension is denied, the owner or operator shall submit a compliance plan in accordance with subdivision 7.9.f no later than 30 days after denial of the request for extension or one year after the effective date of U.S. EPA's approval of the 111(d)/129 state plan revision for HMIWI units, whichever is later; or

7.9.h.2. If the request for extension is granted, the owner or operator shall submit a compliance plan and schedule commensurate with the granted extension no later than 30 days after the date the request for extension has been granted; and

7.9.h.3. On or before October 6, 2014, the owner or operator shall comply with the emissions guidelines for existing HMIWI units under 40 CFR part 62, subpart XX, and the related provisions of 40 CFR part 60, subpart Ce, and not allow or cause to be allowed a HMIWI unit to be operated except in compliance with all applicable provisions of this section.

§45-18-8. Requirements for new commercial and industrial solid waste incinerators.

8.1. Requirements for new CISWI units. -- The owner or operator of a commercial and industrial solid waste incineration unit (CISWI unit) under subsection 8.2 shall comply with all applicable standards of performance, requirements, and provisions of 40 CFR part 60 subpart CCCC, including any reference methods, performance specifications, and other test methods associated with subpart CCCC. No person shall construct, reconstruct, modify or operate, or cause to be constructed, reconstructed, modified or operated a new CISWI unit that results in a violation of 40 CFR part 60 subpart CCCC or this rule.

8.2. Applicability. -- The owner or operator of a CISWI unit that meets any of the following criteria is subject to the requirements for new CISWI units set forth in section 8:

8.2.a. A CISWI unit that commenced construction after June 4, 2010; or

8.2.b. A CISWI unit that commenced reconstruction or modification after August 7, 2013; or

8.2.c. An incinerator and air curtain incinerator, 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 section until such time the unit becomes subject to section 9 of this rule; and

8.2.d. The incineration unit does not meet the exemption criteria under 40 CFR § 60.2020.

8.3. Physical or Operational Changes. -- Physical or operational changes to an incineration unit

primarily to comply with the emission guidelines in section 9 of this rule and 40 CFR part 60, subpart DDDD do not qualify as a reconstruction or modification under section 8.

§45-18-9. Requirements for existing commercial and industrial solid waste incinerators.

9.1. Requirements for existing CISWI units. -- The owner or operator of an existing CISWI unit shall comply with the applicable emission guidelines, compliance times, requirements, and provisions of 40 CFR part 60 subpart DDDD set forth in section 9 and Tables 45-18E, 45-18F, 45-18G, 45-18H, 45-18I, 45-18J, 45-18K, 45-18L and 45-18M, including any reference methods, performance specifications, and other test methods associated with subpart DDDD. No person shall reconstruct, modify or operate, or cause to be reconstructed, modified or operated, an existing CISWI unit that results in a violation of the requirements for existing CISWI units set forth in section 9.

9.2. Applicability.

9.2.a. Incineration units that meet all three criteria described in paragraphs 9.2.a.1 through 9.2.a.3 are subject to the requirements for existing CISWI units under section 9.

9.2.a.1. CISWI units and ~~air curtain incinerators~~ ACIs in West Virginia that commenced construction on or before June 4, 2010, or commenced modification or reconstruction after June 4, 2010 but no later than August 7, 2013;

9.2.a.2. Incineration units that meet the definition of a CISWI unit or an ACI as defined in ~~subsection 2.4~~ section 2 of this rule and

9.2.a.3. Incineration units not exempt under subdivision 9.2.d below.

9.2.b. Physical or operational changes.

9.2.b.1. If the owner or operator of a CISWI unit or ~~air curtain incinerator~~ ACI makes changes that meet the definition of modification or reconstruction after August 7, 2013, the CISWI unit or ACI becomes subject to 40 CFR part 60, subpart CCCC under section 8 of this rule, and the requirements for existing CISWI units under section 9 no longer apply to that unit.

9.2.b.2. If the owner or operator of a CISWI unit or ACI makes physical or operational changes to an existing CISWI unit or ACI primarily to comply with the requirements of section 9, the requirements for new CISWI units under section 8 of this rule and 40 CFR part 60, subpart CCCC do not apply to that unit. Such changes do not qualify as modifications or reconstructions under section 8 of this rule and 40 CFR part 60, subpart CCCC.

9.2.c. Reserved.

9.2.d. Exemption. -- The types of units described in paragraphs 9.2.d.1~~, 9.2.d.3 through 9.2.d.9, and 9.2.d.13 through 9.2.d.15~~ through 9.2.d.10 are exempt from the requirements of section 9, but some units are required to provide notifications. ~~Air curtain incinerators are exempt from the requirements of subsection 13.3 and section 9 except for the provisions set forth in subdivisions 9.13.l and 9.13.n.~~

9.2.d.1. Pathological waste incineration units. -- Incineration units burning 90% 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 are not subject to section 9 if the unit meets the requirements specified in subparagraphs 9.2.d.1.A and 9.2.d.1.B below:

9.2.d.1.A. Notify the Secretary that the unit meets these criteria; and

9.2.d.1.B. 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.

9.2.d.2. ~~Reserved.~~

~~9.2.d.3.~~ Municipal waste combustion units. -- Incineration units that are subject to subpart Ea of 40 CFR part 60 (Standards of Performance for Municipal Waste Combustors); subpart Eb of 40 CFR part 60 (Standards of Performance for Large Municipal Waste Combustors); subpart Cb of 40 CFR part 60 (Emission Guidelines and Compliance Time for Large Municipal Combustors); subpart AAAA of 40 CFR part 60 (Standards of Performance for Small Municipal Waste Combustion Units); or subpart BBBB of 40 CFR part 60 (Emission Guidelines for Small Municipal Waste Combustion Units).

~~9.2.d.4~~ 9.2.d.3. Medical waste incineration units. -- Incineration units regulated under subpart Ec of 40 CFR part 60 (Standards of Performance for Hospital/Medical/, and Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996) or subpart Ca of 40 CFR part 60 (Emission Guidelines and Compliance Times for Hospital/, Medical/, and Infectious Waste Incinerators).

~~9.2.d.5~~ 9.2.d.4. Small power production facilities. -- Units that meet the requirements specified in subparagraphs 9.2.d.4.A through 9.2.d.4.D below:

~~9.2.d.5.A~~ 9.2.d.4.A. 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));

~~9.2.d.5.B~~ 9.2.d.4.B. The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity;

~~9.2.d.5.C~~ 9.2.d.4.C. The owner or operator submits documentation to the Administrator and Secretary that the qualifying small power production facility is combusting homogenous waste; and

~~9.2.d.5.D~~ 9.2.d.4.D. The owner or operator maintains the records specified in subdivision 9.11.v. below.

~~9.2.d.6~~ 9.2.d.5. Cogeneration facilities. -- Units that meet the requirements specified in subparagraphs 9.2.d.5.A through 9.2.d.5.D below:

~~9.2.d.6.A~~ 9.2.d.5.A. The unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act (16 U.S.C. § 796(18)(B));

~~9.2.d.6.B~~ 9.2.d.5.B. 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;

~~9.2.d.6.C~~ 9.2.d.5.C. The ~~unit~~ owner or operator submits documentation to the Administrator and Secretary that the qualifying cogeneration facility is combusting homogenous waste; and

~~9.2.d.6.D~~ 9.2.d.5.D. The ~~unit~~ owner or operator maintains the records specified in subdivision 9.11.w. below.

~~9.2.d.7~~ 9.2.d.6. Hazardous waste combustion units. -- Units for which the owner or operator is required to get a permit under section 3005 of the Solid Waste Disposal Act.

~~9.2.d.8~~ 9.2.d.7. Materials recovery units. -- Units that combust waste for the primary purpose of recovering metals, such as primary and secondary smelters.

~~9.2.d.9. Air curtain incinerators. -- Air curtain incinerators that burn only the materials listed~~

~~in subparagraphs 9.2.d.9.A through 9.2.d.9.C are only required to meet the requirements for air curtain incinerators set forth in subsections 9.13 and 13.3. below:~~

~~9.2.d.9.A. 100% wood waste.~~

~~9.2.d.9.B. 100% clean lumber.~~

~~9.2.d.9.C. 100% mixture of only wood waste, clean lumber, and/or yard waste.~~

~~9.2.d.10. Reserved.~~

~~9.2.d.11. Reserved.~~

~~9.2.d.12. Reserved.~~

~~9.2.d.13~~ 9.2.d.8. Sewage treatment plants. -- Incineration units regulated under subpart O of 40 CFR part 60 (Standards of Performance for Sewage Treatment Plants) and 45CSR16.

~~9.2.d.14~~ 9.2.d.9. 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 40 CFR part 60 (Standards of Performance for Sewage Sludge Incineration Units) or subpart MMMM of 40 CFR part 60 (Emission Guidelines for Sewage Sludge Incineration Units) and 45CSR16.

~~9.2.d.15~~ 9.2.d.10. Other solid waste incineration units. -- Incineration units that are subject to subpart EEEE of 40 CFR part 60 (Standards of Performance for Other Solid Waste Incineration Units) or subpart FFFF of 40 CFR part 60 (Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units) and 45CSR16.

9.3. Compliance times and increments of progress.

9.3.a. For CISWI units in the incinerator subcategory and air curtain incinerators that commenced construction on or before November 30, 1999, such CISWI units shall achieve final compliance as expeditiously as practicable after approval of the West Virginia § 111(d)/129 plan but not later than December 1, 2005.

9.3.b. For CISWI units in the incinerator subcategory and air curtain incinerators that commenced construction after November 30, 1999, but on or before June 4, 2010 or that commenced reconstruction or modification on or after June 1, 2001 but no later than August 7, 2013, and for CISWI units in the small remote incinerator, energy recovery unit, and waste-burning kiln subcategories that commenced construction before June 4, 2010, such CISWI units shall achieve final compliance as expeditiously as practicable after approval of the West Virginia § 111(d)/129 plan but not later than February 7, 2018.

9.3.c. Owners and operators of existing CISWI units that have compliance schedules more than one year following the effective date of West Virginia's CAA § 111(d)/129 plan approval are subject to the increments of progress set forth in subdivision 9.3.e.

9.3.d. Reserved.

9.3.e. Increments of progress. -- The owner or operator of an existing CISWI unit that cannot achieve compliance within one year after the effective date of West Virginia § 111(d)/129 plan approval shall comply with the increments of progress set forth in Table 45-18E.

9.3.f. Notification of achievement of increments of progress shall include the following three items:

9.3.f.1. Notification that the increment of progress has been achieved;

9.3.f.2. Any items required to be submitted with each increment of progress; and

9.3.f.3. Signature of the owner or operator of the CISWI unit.

9.3.g. Notifications for achieving increments of progress shall be postmarked no later than ten business days after the compliance date for the increment.

9.3.h. If the unit fails to meet an increment of progress, the owner or operator shall submit a notification to the Secretary postmarked within ten business days after the date for that increment of progress in subdivision 9.3.e. The owner or operator shall inform the Secretary that the unit did not meet the increment and shall continue to submit reports each subsequent calendar month until the unit meets the increment of progress.

9.3.i. For control plan increment of progress, the owner or operator shall satisfy the ~~following~~ requirements specified in subdivisions 9.3.i.1 and 9.3.i.2 below:

9.3.i.1. Submit the final control plan that includes the ~~five~~ items described below in subparagraphs 9.3.i.1.A through 9.3.i.1.E:

9.3.i.1.A. A description of the devices for air pollution control and process changes that the owner or operator will use to comply with the emission limitations and other requirements of section 9;

9.3.i.1.B. The type(s) of waste to be burned;

9.3.i.1.C. The maximum design waste burning capacity;

9.3.i.1.D. The anticipated maximum charge rate; and

9.3.i.1.E. If applicable, the petition for site-specific operating limits under subdivision 9.6.l; and

9.3.i.2. Maintain an onsite copy of the final control plan.

9.3.j. For the final compliance increment of progress, the owner or operator shall complete all process changes and retrofit construction of control devices as specified in the final control plan so that, if the affected CISWI unit is brought online, all necessary process changes and air pollution control devices would operate as designed.

9.3.k. If the owner or operator closes the CISWI unit but will restart it prior to the final compliance date set forth in subdivision 9.3.b, the owner or operator shall meet the increments of progress set forth in subdivision 9.3.e.

9.3.l. If the owner or operator closes the CISWI unit but will restart it after the final compliance date set forth in subdivision 9.3.b, the owner or operator shall complete emission control retrofits and meet the emission limitations and operating limits on the date the unit restarts operation.

9.3.m. If the owner or operator plans to permanently close the CISWI unit rather than comply with section 9, the owner or operator shall submit a closure notification, including the date of closure, to the Secretary by the date the final control plan is due.

9.4. 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.

9.4.a. The owner or operator shall submit a waste management plan to the Secretary no later than the date specified in Table 45-18E for submittal of the final control plan.

9.4.b. A waste management plan shall 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 shall identify any additional waste management measures, and the source shall implement those measures considered practical and feasible based on 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.

9.5. Operator training and qualification.

9.5.a. No CISWI unit shall be operated unless a fully trained and qualified CISWI unit operator is accessible, either at the facility or within one hour of travel time from the facility. The trained and qualified CISWI unit operator may operate the CISWI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified CISWI unit operators are temporarily not accessible, the unit shall follow the procedures in subdivision 9.5.k below.

9.5.b. Operator training and qualification shall be obtained by completing an incinerator operator training course that includes, at a minimum, the elements described below:

9.5.b.1. Training on the following subjects:

9.5.b.1.A. Environmental concerns, including types of emissions;

9.5.b.1.B. Basic combustion principles, including products of combustion;

9.5.b.1.C. Operation of the specific type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures;

9.5.b.1.D. Combustion controls and monitoring;

9.5.b.1.E. Operation of air pollution control equipment and factors affecting performance (if applicable);

9.5.b.1.F. Inspection and maintenance of the incinerator and air pollution control devices;

9.5.b.1.G. Actions to prevent and correct malfunctions or to prevent conditions that may lead to malfunctions;

9.5.b.1.H. Bottom and fly ash characteristics and handling procedures;

9.5.b.1.I. Applicable federal, state, and local regulations, including Occupational Safety and Health Administration workplace standards;

9.5.b.1.J. Pollution prevention; and

9.5.b.1.K. Waste management practices.

9.5.b.2. An examination designed and administered by the instructor of the incinerator operator training course; and

9.5.b.3. Written material covering the training course topics that can serve as reference material following completion of the course.

9.5.c. The operator training course shall be completed by the later of the following three dates:

9.5.c.1. The final compliance date set forth in subdivision ~~9.3.b.~~ 9.3.e;

9.5.c.2. Six months after CISWI unit startup; or

9.5.c.3. ~~Six months after an employee assumes responsibility for operating the CISWI unit or assumes responsibility for supervising the operation of the CISWI unit~~ The date before an employee assumes responsibility for operating the CISWI or assumes responsibility for supervising the operation of the CISWI.

9.5.d. The owner or operator shall obtain operator qualification by completing a training course that satisfies the criteria under subdivision 9.5.b.

9.5.e. Qualification is valid from the date on which the training course ~~is~~ was completed and the operator successfully passes the examination required under paragraph 9.5.b.2.

9.5.f. To maintain qualification, the owner or operator shall complete an annual review or refresher course covering, at a minimum, the topics described below:

9.5.f.1. Update of regulations;

9.5.f.2. Incinerator operation, including startup and shutdown procedures, waste charging, and ash handling;

9.5.f.3. Inspection and maintenance;

9.5.f.4. Prevention and correction of malfunctions or conditions that may lead to malfunction; and

9.5.f.5. Discussion of operating problems encountered by attendees.

9.5.g. The owner or operator shall renew a lapsed operator qualification by one of the methods specified below:

9.5.g.1. For a lapse of less than three years, the owner or operator shall complete a standard annual refresher course described in subdivision 9.5.f.; or

9.5.g.2. For a lapse of three years or more, the owner or operator shall repeat the initial qualification requirements set forth in subdivision 9.5.d.

9.5.h. Documentation shall be available at the facility and readily accessible for all CISWI unit operators that addresses the topics described in paragraphs 9.5.h.1 through 9.5.h.10 below. The owner or operator shall maintain this information and the training records required by subdivision 9.5.j in a manner that they can be readily accessed and are suitable for inspection upon request.

9.5.h.1. Summary of the applicable standards under section 9;

9.5.h.2. Procedures for receiving, handling, and charging waste;

9.5.h.3. Incinerator startup, shutdown, and malfunction procedures;

9.5.h.4. Procedures for maintaining proper combustion air supply levels;

9.5.h.5. Procedures for operating the incinerator and associated air pollution control systems within the standards established under section 9;

9.5.h.6. Monitoring procedures for demonstrating compliance with the incinerator operating limits;

9.5.h.7. Reporting and recordkeeping procedures;

9.5.h.8. The waste management plan required under subsection 9.4.;

9.5.h.9. Procedures for handling ash; and

9.5.h.10. A list of the wastes burned during the performance test.

9.5.i. The owner or operator shall establish a program for reviewing the information listed in subdivision 9.5.h with each incinerator operator.

9.5.i.1. The initial review of the information listed in subdivision 9.5.h shall be conducted by the later of the three dates specified below:

9.5.i.1.A. The final compliance date (increment 2) set forth in subdivision ~~9.3.b.~~ 9.3.e;

9.5.i.1.B. Six months after CISWI unit startup; or

9.5.i.1.C. Six months after being assigned to operate the CISWI unit.

9.5.i.2. The owner or operator shall conduct subsequent annual reviews of the information listed in subdivision 9.5.h no later than 12 months following the previous review.

9.5.j. The owner or operator shall also maintain the information specified below:

9.5.j.1. Records showing the names of CISWI unit operators who have completed review of the information in subdivision 9.5.h as required by subdivision 9.5.i, including the date of the initial review and all subsequent annual reviews;

9.5.j.2. Records showing the names of the CISWI operators who have completed the operator training requirements under subsection 9.5, met the criteria for qualification under subdivision 9.5.d, and maintained or renewed their qualification under subdivision 9.5.f or subdivision 9.5.g. Records shall include documentation of training, the dates of the initial refresher training, the dates of their qualifications, and all subsequent renewals of such qualifications; and

9.5.j.3. For each qualified operator, the phone and/or cell phone number at which they can be reached during operating hours.

9.5.k. If all qualified operators are temporarily not accessible (i.e., not at the facility and not able to be at the facility within one hour), the owner or operator shall either, depending on the length of time that a qualified operator is not accessible:

9.5.k.1. When all qualified operators are not accessible for more than eight hours, but less than two weeks, the CISWI unit may be operated by other plant personnel familiar with the operation of the CISWI unit who have completed a review of the information specified in subdivision 9.5.h within the past 12 months; however, the owner or operator shall record the period when all qualified operators were not accessible and include this deviation in the annual report as specified under subdivision 9.12.e.; or

9.5.k.2. When all qualified operators are not accessible for two weeks or more, the owner or

operator shall take both actions that are described below:

9.5.k.2.A. Notify the Secretary in writing within ten days of this deviation. In the notice, state what caused this deviation, what the owner or operator is doing to ensure that a qualified operator is accessible, and when the owner or operator anticipates that a qualified operator will be accessible; and

9.5.k.2.B. Submit a status report to the Administrator and Secretary every four weeks outlining what the owner or operator is doing to ensure that a qualified operator is accessible, stating when the owner or operator anticipates that a qualified operator will be accessible and requesting approval from the Administrator and Secretary to continue operation of the CISWI unit. The owner or operator shall submit the first status report four weeks after notification to the Administrator and the Secretary of the deviation under subparagraph 9.5.k.2.A. If the Administrator and Secretary notifies the owner or operator that the request to continue operation of the CISWI unit is disapproved, the CISWI unit may continue operation for 90 days, then shall cease operation. Operation of the unit may resume if the owner or operator meets the following requirements:

9.5.k.2.B.1. A qualified operator is accessible as required under subdivision 9.5.a.; and

9.5.k.2.B.2. The owner or operator notifies the Administrator and Secretary that a qualified operator is accessible and that operations are resuming.

9.6. Emission limitations and operating limits.

9.6.a. The owner or operator shall meet the emission limitations for each CISWI unit, including bypass stack or vent, specified in Table 45-18F or Tables 45-18J through 45-18M, by the final compliance date set forth in subdivision 9.3.b. The emission limitations apply at all times the unit is operating including and not limited to startup, shutdown or malfunction.

9.6.b. Units that do not use wet scrubbers shall maintain opacity to less than or equal to the percent opacity (three one-hour blocks consisting of ten six-minute average opacity values) specified in Table 45-18F as applicable.

9.6.c. If the owner or operator uses a wet scrubber(s) to comply with the emission limitations, the owner or operator shall establish operating limits for up to four operating parameters (as specified in Table 45-18G) as described in paragraphs 9.6.c.1 through 9.6.c.4 during the initial performance test:

9.6.c.1. Maximum charge rate, calculated using one of the two procedures below, as appropriate:

9.6.c.1.A. For continuous and intermittent units, maximum charge rate is 110% of the average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations; or

9.6.c.1.B. For batch units, maximum charge rate is 110% of the daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

9.6.c.2. Minimum pressure drop across the wet particulate matter scrubber, which is calculated as the lowest one-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 one-hour average amperage to the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations;

9.6.c.3. Minimum scrubber liquid flow rate, which is calculated as the lowest one-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/or

9.6.c.4. Minimum scrubber liquor pH, which is calculated as the lowest one-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.

9.6.d. The owner or operator shall meet the operating limits established ~~during the initial performance test~~ on the date the ~~initial~~ performance test is ~~required or completed (whichever is earlier). The owner or operator shall conduct an initial performance evaluation of each continuous monitoring system and continuous parameter monitoring system within 60 days of installation of the monitoring system.~~ submitted to the EPA's Central Data Exchange or postmarked in accordance with paragraph 9.12.j.2 of this rule.

9.6.e. If the owner or operator uses a fabric filter to comply with the emission limitations and does not use a particulate matter (PM) continuous parameter monitoring system (CPMS) for monitoring PM compliance, the owner or operator shall operate each fabric filter system such that the bag leak detection system alarm does not sound more than five percent of the operating time during a six-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 one hour. If the owner or operator takes longer than one hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken to initiate corrective action.

9.6.f. If the owner or operator uses an electrostatic precipitator to comply with the emission limitations and does not use a PM CPMS for monitoring PM compliance, the owner or operator shall measure the (secondary) voltage and amperage of the electrostatic precipitator collection plates during the particulate matter performance test. Calculate the average electric power value (secondary voltage × secondary current = secondary electric power) for each test run. The operating limit for the electrostatic precipitator is calculated as the lowest one-hour average secondary electric power measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

9.6.g. If the owner or operator uses activated carbon sorbent injection to comply with the emission limitations, the owner or operator shall measure the sorbent flow rate during the performance testing. The operating limit for the carbon sorbent injection is calculated as the lowest one-hour average sorbent flow rate measured during the most recent performance test demonstrating compliance with the mercury emission limitations. For energy recovery units, when the unit operates at lower loads, multiply the sorbent injection rate by the load fraction, as defined in 40 CFR §~~60.2265~~ 60.2875, to determine the required injection rate (e.g., for 50% load, multiply the injection rate operating limit by 0.5).

9.6.h. If the owner or operator uses selective noncatalytic reduction to comply with the emission limitations, the owner or operator shall measure the charge rate, the secondary chamber temperature (if applicable to the CISWI unit), and the reagent flow rate during the nitrogen oxides performance testing. The operating limits for the selective noncatalytic reduction are calculated as the highest one-hour average charge rate, lowest secondary chamber temperature, and lowest reagent flow rate measured during the most recent performance test demonstrating compliance with the nitrogen oxides emission limitations.

9.6.i. If the owner or operator uses a dry scrubber to comply with the emission limitations, the owner or operator shall 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 one-hour average injection rate of each sorbent measured during the most recent performance test demonstrating compliance with the hydrogen chloride emission limitations. For energy recovery units, when the unit operates at lower loads, multiply the sorbent injection rate by the load fraction, as defined in 40 CFR § ~~60.2265~~ 60.2875, to determine the required injection rate (e.g., for 50% load, multiply the injection rate operating limit by 0.5).

9.6.j. If the owner or operator does not use a wet scrubber, electrostatic precipitator, or fabric filter

to comply with the emission limitations, and if the owner or operator does not determine compliance with particulate matter emission limitation with a particulate matter CEMS, the unit shall maintain opacity to less than or equal to ten percent opacity (one-hour block average).

9.6.k. If the owner or operator uses a PM CPMS to demonstrate compliance, the owner or operator shall establish a PM CPMS operating limit and determine compliance with it according to paragraphs 9.6.k.1 through 9.6.k.5 below:

9.6.k.1. During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record all hourly average output values (milliamps, or the digital signal equivalent) from the PM CPMS for the periods corresponding to the test runs (e.g., three one-hour average PM CPMS output values for three one-hour test runs).

9.6.k.1.A. The PM CPMS shall provide a 4-20 milliamp output, or digital signal equivalent, and the establishment of its relationship to manual reference method measurements shall be determined in units of milliamps or digital bits.

9.6.k.1.B. The PM CPMS operating range shall be capable of reading PM concentrations from zero to a level equivalent to at least two times the allowable emission limit. If the PM CPMS is an auto-ranging instrument capable of multiple scales, the primary range of the instruments shall be capable of reading PM concentration from zero to a level equivalent to two times ~~your~~ the allowable emission limit.

9.6.k.1.C. During the initial performance test or any 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 PM CPMS output values for three corresponding two-hour Method 5I test runs).

9.6.k.2. If the average of the three PM performance test runs are below 75% of the facility's PM emission limit, the owner or operator shall 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 values corresponding to the three compliance test runs, and the average PM concentration from the Method 5 or performance test with the procedures in paragraphs 9.6.k.1 through 9.6.k.5.

9.6.k.2.A. Determine the facility's instrument zero output with one of the following procedures:

9.6.k.2.A.1. 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.

9.6.k.2.A.2. Zero point data for extractive instruments should be obtained by removing the extractive probe from the stack and drawing in clean ambient air.

9.6.k.2.A.3. 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 the process is not operating, but the fans are operating or the source is combusting only natural gas) and plotting these with the compliance data to find the zero intercept.

9.6.k.2.A.4. If none of the steps in parts 9.6.k.2.A.1 through 9.6.k.2.A.3 are possible, the owner or operator shall use a zero output value provided by the manufacturer.

9.6.k.2.B. The owner or operator shall determine its PM CPMS instrument average in milliamps, or the digital equivalent, and the average of the corresponding three PM compliance test runs, using Equation 1:

$$\bar{x} = \frac{1}{n}\sum_{i=1}^{n} X_1, \qquad \bar{y} = \frac{1}{n}\sum_{i=1}^{n} Y_1 \qquad Equation\ 1$$

Where:

X_1 = the PM CPMS 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.

9.6.k.2.C. With the instrument zero expressed in milliamps, or the digital equivalent, the three run average PM CPMS milliamp value, or its digital equivalent, and the 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.

$$R = \frac{Y_1}{(X_{1-z})} \qquad Equation\ 2$$

Where:

R = the relative mg/dscm per milliamp, or the digital equivalent, for ~~your~~ the PM CPMS,
Y_1 = the three-run average mg/dscm PM concentration,
X_1 = the three-run average milliamp output or digital equivalent, from the PM CPMS, and
z = the milliamp equivalent or digital signal equivalent of the instrument zero determined from subparagraph 9.6.k.2.A.

9.6.k.2.D. Determine the source specific 30-day rolling average operating limit using the mg/dscm per milliamp value, or per digital signal equivalent, from Equation 2 in Equation 3, below. This sets the operating limit at the PM CPMS output value corresponding to 75% of the emission limit.

$$O_l = z + \frac{0.75(L)}{R} \qquad Equation\ 3$$

Where:

O_l = the operating limit for the PM CPMS on a 30-day rolling average, in milliamps or their digital signal equivalent.
L = the source emission limit expressed in mg/dscm,
z = the instrument zero in milliamps or digital equivalent, determined from subparagraph 9.6.k.2.A, and
R = the relative mg/dscm per milliamp, or per digital signal output equivalent, for the PM CPMS, from Equation 2.

9.6.k.3. If the average of the three PM compliance test runs is at or above 75% of the PM emission limit, the owner or operator shall determine the operating limit by averaging the PM CPMS milliamp or digital signal output corresponding to the three PM performance test runs that demonstrate compliance with the emission limit using Equation 4, and the owner or operator shall submit all compliance test and PM CPMS data according to the reporting requirements in paragraph 9.6.k.5.

$$O_h = \frac{1}{n}\sum_{i=1}^{n} X_1 \qquad Equation\ 4$$

Where:

X_i = the PM CPMS data points for all runs i,
n = the number of data points, and
O_h = the site specific operating limit, in milliamps or digital signal equivalent.

9.6.k.4. To determine continuous compliance, the owner or operator shall record the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. The owner or operator shall 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.

9.6.k.5. For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report shall 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 instrument's 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.

9.6.l. If the owner or operator uses 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 mass balances, to comply with the emission limitations under subdivisions 9.6.a and 9.6.b, the owner or operator shall petition the Secretary for specific operating limits to be established during the initial performance test and continuously monitored thereafter. The owner or operator shall submit the petition at least 60 days before the performance test is scheduled to begin. The owner's or operator's petition shall include the following five items:

9.6.l.1. Identification of the specific parameters the owner or operator proposes to use as additional operating limits;

9.6.l.2. 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;

9.6.l.3. A discussion of how the owner or operator will establish the upper and/or lower values for these parameters which will establish the operating limits on these parameters;

9.6.l.4. A discussion identifying the methods the owner or operator will use to measure and the instruments the owner or operator will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

9.6.l.5. A discussion identifying the frequency and methods for recalibrating the instruments the owner or operator will use for monitoring these parameters.

~~9.6.m. Reserved.~~

~~9.6.n. Reserved.~~

9.7. Performance testing.

9.7.a. All performance tests shall consist of a minimum of three test runs conducted under conditions representative of normal operations.

9.7.b. The owner or operator shall 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 paragraph 9.11.b.1) and the types of waste burned during the performance

test.

9.7.c. The owner or operator shall conduct all performance tests using the minimum run duration specified in Table 45-18F and Tables 45-18J through 45-18M.

9.7.d. The owner or operator shall use Method 1 of 40CFR ~~part~~ 60, appendix A to select the sampling location and number of traverse points.

9.7.e. The owner or operator shall use Method 3A or 3B of 40CFR ~~part~~ 60, appendix A for gas composition analysis, including measurement of oxygen concentration. The owner or operator shall use Method 3A or 3B of appendix A simultaneously with each method (except when using Method 9 and Method 22).

9.7.f. All pollutant concentrations, except for opacity, shall be adjusted to seven percent oxygen using Equation 5:

$$C_{adj} = C_{meas}\frac{(20.9-7)}{(20.9-\%O_2)} \quad Equation\ 5$$

Where:

C_{adj} = pollutant concentration adjusted to seven percent (7%) oxygen;
C_{meas} = pollutant concentration measured on a dry basis;
(20.9 - 7) = 20.9% oxygen – 7% oxygen (defined oxygen correction basis);
20.9 = oxygen concentration in air, percent; and
$\%O_2$ = oxygen concentration measured on a dry basis, percent.

9.7.g. The owner or operator shall determine dioxins/furans toxic equivalency by following the procedures in paragraphs 9.7.g.1 through 9.7.g.4 below:

9.7.g.1. Measure the concentration of each dioxin/furan tetra- through octa-isomer emitted using EPA Method 23 at 40CFR ~~part~~ 60, appendix A and 45CSR16.

9.7.g.2. Quantify isomers meeting identification criteria 2, 3, 4, and 5 in section 5.3.2.5 of Method 23, regardless of whether the isomers meet identification criteria 1 and 7. The owner or operator shall quantify the isomers per section 9.0 of Method 23 (Note: The owner or operator may reanalyze the sample aliquot or split to reduce the number of isomers not meeting identification criteria 1 or 7 of section 5.3.2.5 of Method 23).

9.7.g.3. For each dioxin/furan (tetra through octa-chlorinated) isomer measured in accordance with paragraphs 9.7.g.1 and 9.7.g.2, multiply the isomer concentration by its corresponding toxic equivalency factor specified in Table 45-18H.

9.7.g.4. Sum the products calculated in accordance with paragraph 9.7.g.3 to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

9.7.h. The owner or operator shall use Method 22 at 40CFR ~~part~~ 60, appendix A-7 and 45CSR16 to determine compliance with the fugitive ash emission limit in Table 45-18F or Tables 45-18J through 45-18M.

9.7.i. If the facility has an applicable opacity operating limit, the owner or operator shall determine compliance with the opacity limit using Method 9 at 40CFR ~~part~~ 60, appendix A-4 and 45CSR16, based on three one-hour blocks consisting of ten six-minute average opacity values, unless the owner or operator is required to install a continuous opacity monitoring system, consistent with subdivisions 9.9.a through ~~9.9.w~~

9.9.v and subdivisions 9.10.a through ~~9.10.r~~ 9.10.t of this rule.

9.7.j. The owner or operator shall determine dioxins/furans total mass basis by following the procedures in paragraphs 9.7.j.1 through 9.7.j.3 below:

9.7.j.1. Measure the concentration of each dioxin/furan tetra- through octa-chlorinated isomer emitted using EPA Method 23 at 40CFR ~~part~~ 60, appendix A-7 and 45CSR16.

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

9.7.j.3. Sum the quantities measured in accordance with paragraphs 9.7.j.1 and 9.7.j.2 to obtain the total concentration of dioxins/furans emitted in terms of total mass basis.

9.7.k. The owner or operator shall use results of performance tests to demonstrate compliance with the emission limitations in Table 45-18F or Tables 45-18J through 45-18M.

9.8. Initial compliance requirements.

9.8.a. The owner or operator shall conduct a performance test, as required under subsection 9.7 ~~through paragraph 9.7.j.3~~ and subdivisions 9.6.a. and 9.6.b, to determine compliance with the emission limitations in Table 45-18F and Tables 45-18J through 45-18M, to establish compliance with any opacity operating limits in subdivisions 9.6.a. through paragraph 9.6.k.5, to establish the kiln-specific emission limit in subdivision 9.9.v, as applicable, and to establish operating limits using the procedures in subdivision 9.6.c through paragraph 9.6.k.5 or subdivisions 9.6.l ~~through 9.6.m~~. The owner or operator shall conduct the performance test using the test methods listed in Table 45-18F and Tables 45-18J through 45-18M and the procedures in subsection 9.7 ~~through paragraph 9.7.j.3~~. The use of the bypass stack during a performance test shall invalidate the performance test. ~~The owner or operator shall conduct a performance evaluation of each continuous monitoring system within 60 days of installation of the monitoring system.~~

9.8.b. As an alternative to conducting a performance test as required under subsection 9.7 and subdivisions 9.6.a and 9.6.b, the owner or operator 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 § 45-18-2, to determine compliance with the emission limitations in Table 45-18E or Tables 45-18I through 45-18L. The owner or operator shall conduct:

9.8.b.1. a performance evaluation of each continuous monitoring system within 180 days of installation of the monitoring system; and

9.8.b.2. the initial performance evaluation prior to collecting CEMS data that will be used for the initial compliance demonstration.

~~9.8.b~~ 9.8.c. The owner or operator shall conduct the initial performance test no later than 180 days after the final compliance date set forth in ~~subdivision 9.3.b~~ Table 45-18E.

~~9.8.c~~ 9.8.d. If the owner or operator commences or recommences combusting a solid waste at an existing combustion unit at any commercial or industrial facility and conducted a test consistent with the provisions of section 9 while combusting the given solid waste within the six months preceding the reintroduction of that solid waste in the combustion chamber, the owner or operator does not need to retest until six months from the date of reintroduction of that solid waste.

~~9.8.d~~ 9.8.e. If the owner or operator commences combusting or recommences combusting a solid

waste at an existing combustion unit at any commercial or industrial facility and the owner or operator has not conducted a performance test consistent with the provisions of ~~section~~ § 45-18-9 while combusting the given solid waste within the six months preceding the reintroduction of that solid waste in the combustion chamber, the owner or operator shall conduct a performance test within 60 days commencing or recommencing solid waste combustion.

~~9.8.e~~ 9.8.f. The owner or operator shall conduct the initial air pollution control device inspection within 60 days after installation of the control device and the associated CISWI unit reaches the charge rate at which it will operate, but no later than 180 days after the final compliance date for meeting the amended emission limitations.

~~9.8.f~~ 9.8.g. Within ten operating days following an air pollution control device inspection, the owner or operator shall complete all necessary repairs, unless the owner or operator obtains written approval from the Secretary establishing a date whereby all necessary repairs of the designated facility shall be completed.

9.9. Continuous compliance requirements.

9.9.a. General compliance with standards, considering some units may be able to switch between solid waste and non-waste fuel combustion, is specified in paragraphs 9.9.a.1 through 9.9.a.6 below:

9.9.a.1. The emission standards and operating requirements set forth in section 9 apply at all times.

9.9.a.2. If the facility ceases combusting solid waste, the owner or operator may opt to remain subject to the provisions of section 9. Consistent with the definition of CISWI unit, the owner or operator is subject to the requirements of section 9 at least six 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).

9.9.a.3. If the facility ceases combusting solid waste, the owner or operator shall comply 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 the owner or operator, which shall be at least six months from the date that the facility ceased combusting solid waste, consistent with paragraph 9.9.a.2. The source shall remain in compliance with section 9 until the effective date of the waste-to-fuel switch.

9.9.a.4. If the owner or operator owns or operates an existing commercial or industrial combustion unit that combusted a fuel or non-waste material, and the owner or operator commences or recommences combustion of solid waste, the owner or operator is subject to the provisions of section 9 as of the first day of introduction or reintroduction of solid waste to the combustion chamber, and this date constitutes the effective date of the fuel-to-waste switch. The owner or operator shall complete all initial compliance demonstrations for any § 112 CAA standards that are applicable to the facility before commencement or recommencement of combustion of solid waste. The owner or operator shall provide 30 days prior notice to the Secretary of the effective date of the waste-to-fuel switch. The notification shall identify:

9.9.a.4.A. The name of the owner or operator of the CISWI unit, the location of the source, the emissions unit(s) that will cease burning solid waste, and the date of the notice;

9.9.a.4.B. The currently applicable subcategory under section 9 and any 40 CFR part 63 subpart and subcategory that will be applicable after the owner or operator ceases combusting solid waste;

9.9.a.4.C. The fuel(s), non-waste material(s), and solid waste(s) the CISWI unit is currently combusting and has combusted over the past six months and the fuel(s) or non-waste materials

the unit will commence combusting;

9.9.a.4.D. The date on which the owner or operator became subject to the currently applicable emission limits;

9.9.a.4.E. The date upon which the owner or operator will cease combusting solid waste and the date (if different) that the owner or operator intends for any new requirements to become applicable (i.e., the effective date of the waste-to-fuel switch), consistent with paragraphs 9.9.a.2 and 9.9.a.3.

9.9.a.5. The owner or operator shall install 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, and the same shall be operational as of the effective date of the waste-to-fuel or fuel-to-waste switch.

9.9.a.6. The owner or operator shall install 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, and the same shall be operational as of the effective date of the waste-to-fuel or fuel-to-waste switch. The owner or operator shall perform all calibration and drift checks as of the effective date of the waste-to-fuel or fuel-to-waste switch. The owner or operator shall perform relative accuracy tests as of the performance test deadline for PM CEMS (if PM CEMS are elected to demonstrate continuous compliance with the particulate matter emission limits). The owner or operator need not repeat relative accuracy testing for other CEMS if the owner or operator previously performed that testing consistent with § 112 CAA monitoring requirements or monitoring requirements under section 9.

9.9.b. The owner or operator shall conduct an annual performance test for the pollutants listed in Table 45-18F or Tables 45-18J through 45-18M and opacity for each CISWI unit as required under subsection 9.7. The owner or operator shall conduct the annual performance test using the test methods listed in Table 45-18F or Tables 45-18J through 45-18M and the procedures in subsection 9.7. The owner or operator shall measure opacity using EPA Reference Method 9 at 40CFR ~~Part~~ 60. If the owner or operator uses CEMS or continuous opacity monitoring systems to determine compliance, the owner or operator is not required to perform annual performance tests.

9.9.c. The owner or operator shall continuously monitor the operating parameters specified in subdivision 9.6.c through paragraph 9.6.k.5 or established under subdivisions ~~9.6.l and 9.6.m~~ and as specified in subdivision 9.10.s. Operation above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. Three-hour block average values are used to determine compliance (except for baghouse leak detection system alarms) unless a different averaging period is established under subdivisions ~~9.6.l and 9.6.m~~ or, for energy recovery units, where the averaging time for each operating parameter is a 30-day rolling average, 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 the operating limits specified in subdivision 9.9.a constitutes a deviation from operating limits, 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.

9.9.d. The owner or operator shall burn only the same types of waste and fuels used to establish subcategory applicability (for ERUs) and operating limits during the performance test.

9.9.e. For energy recovery units, incinerators, and small remote units, the owner or operator shall perform annual visual emissions test for ash handling.

9.9.f. For energy recovery units, the owner or operator shall conduct an annual performance test for opacity using EPA Reference Method 9 at 40CFR ~~Part~~60 and 45CSR16 (except where particulate matter ~~continuous monitoring system~~ CMS or ~~continuous parameter monitoring systems~~ CPMS are used) and the

pollutants listed in Table 45-18K.

9.9.g. For facilities using a CEMS to demonstrate compliance with the carbon monoxide emission limit, the owner or operator may demonstrate compliance with the carbon monoxide emission limit by using the CEMS ~~according to the following requirements:~~ in accordance with subdivision 9.10.o.

~~9.9.g.1. The owner or operator shall measure emissions according to 40 CFR § 60.13 and 45CSR16 to calculate one-hour arithmetic averages, corrected to seven percent oxygen. CEMS data during startup and shutdown are not corrected to seven percent oxygen and are measured at stack oxygen content. The owner or operator shall demonstrate initial compliance with the carbon monoxide emissions limit using a 30-day rolling average of the one-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown calculated using Equation 19-19 in Section 12.4.1 of EPA Reference Method 19 at 40 CFR Part 60, Appendix A-7 and 45CSR16.~~

~~9.9.g.2. The owner or operator shall operate the carbon monoxide continuous emissions monitoring system in accordance with the applicable requirements of Performance Specification 4A of Appendix B of 40 CFR Part 60 and 45CSR16 and the quality assurance procedures of Appendix F of 40 CFR Part 60 and 45CSR16.~~

9.9.h. Coal and liquid/gas energy recovery units with annual average heat input rates greater than 250 MMBtu/hr may elect to demonstrate continuous compliance with the particulate matter emissions limit using a particulate matter CEMS according to the procedures in subdivision 9.10.n instead of the ~~continuous parameter monitoring system~~ CPMS specified in subdivision 9.9.i. 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 compliance using a particulate matter CEMS according to the procedures in subdivision 9.10.n instead of particulate matter testing with EPA Method 5 at 40CFR~~part~~ 60, appendix A-3 and 45CSR16 and, if applicable, the continuous opacity monitoring requirements in subdivision 9.9.i.

9.9.i. For energy recovery units with annual average heat input rates greater than or equal to 10 MMBtu/hr but 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 the owner or operator shall install, operate, certify, and maintain a continuous opacity monitoring system (COMS) according to the procedures in ~~subdivisions 9.10.a through 9.10.r~~ subdivision 9.10.m.

9.9.j. For waste-burning kilns, the owner or operator shall conduct an annual performance test for the pollutants (except mercury and particulate matter, and hydrogen chloride if no acid gas wet scrubber or dry scrubber is used) listed in Table 45-18L, unless the owner or operator chooses to demonstrate initial and continuous compliance using CEMS, as allowed in subdivision 9.9.u. ~~If the waste-burning kiln is not equipped with a wet scrubber or dry scrubber, the owner or operator shall determine compliance with the hydrogen chloride emission limit using a CEMS as specified in paragraph 9.9.j.1. The owner or operator shall determine compliance with the mercury emissions limit using a mercury CEMS according to paragraph 9.9.j.2. The owner or operator shall determine compliance with particulate matter using CPMS according to the following requirements:~~ If an acid gas wet scrubber or dry scrubber is not used, the owner or operator shall determine compliance with the hydrogen chloride emissions limit using a HCl CEMS according to the requirements in paragraph 9.9.j.1. To determine compliance with the mercury emissions limit, the owner or operator shall use a mercury CEMS or an integrated sorbent trap monitoring system according to paragraph 9.9.j.2. To determine compliance with particulate matter, the owner or operator shall use a CPMS.

9.9.j.1. If the owner or operator monitors compliance with the hydrogen chloride (HCl) emissions limit by operating an HCl CEMS, the owner or operator shall do so in accordance with performance specification 15 (PS 15) of appendix B to 40CFR~~part~~ 60, or PS 18 of appendix B to 40 CFR part 60. The owner or operator shall 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

40CFR ~~part~~ 60, except that the owner or operator shall replace the relative accuracy test audit requirements of Procedure 1 with the validation requirements and criteria of Sections 11.1.1 and 12.0 of PS 15. The owner or operator shall 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 40CFR ~~part~~ 60. For any performance specification used, the owner or operator shall use Method 321 of appendix A to 40CFR ~~part~~ 63 as the reference test method for conducting relative accuracy testing. The span value and calibration requirements in subparagraphs 9.9.j.1.A and 9.9.j.1.B apply to all HCl CEMS used under ~~this subpart~~ section 9:

9.9.j.1.A. The owner or operator shall 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. For kilns without an inline raw mill, the owner or operator may use a higher span value sufficient to quantify all expected emissions concentrations. The HCl CEMS data recorder output range shall include the full range of expected HCl concentration values, which would include those expected during "mill off" conditions. The owner or operator shall document corresponding data recorder range in the site-specific monitoring plan and associated records;

9.9.j.1.B. In order to quality assure data measured above the span value, the owner or operator shall use one of the three options in parts 9.9.j.1.B.1 through 9.9.j.1.B.3 below:

9.9.j.1.B.1 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 owner or operator shall follow requirements of the appropriate HCl monitor performance specification for this second span, except that a RATA with the mill off is not required;

9.9.j.1.B.2. Quality assure any data above the span value by proving instrument linearity beyond the span value established in subparagraph 9.9.j.1.A 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 the highest expected hourly concentration or greater than 75% of the highest measured hourly concentration. The "above span" reference gas shall meet the requirements of the applicable performance specification and shall be introduced to the measurement system at the probe. The owner or operator shall record and report the results of this procedure as it would for a daily calibration. The "above span linearity" challenge is successful if the value measured by the HCl CEMS falls within ten percent of the certified value of the reference gas. If the value measured by the HCl CEMS during the above span linearity challenge exceeds ten percent of the certified value of the reference gas, the owner or operator shall evaluate and repair the monitoring system and meet a new "above span linearity" challenge before returning the HCl CEMS to service, or data above span from the HCl CEMS shall be subject to the quality assurance procedures established in 9.9.j.1.B.4. In this manner, the owner or operator shall normalize values measured by the HCl CEMS in this manner during the above span linearity challenge exceeding plus or minus 20% of the certified value of the reference gas using Equation 6;

9.9.j.1.B.3. Quality assure any data above the span value established in subparagraph 9.9.j.1.A using the following procedure: any time two consecutive one-hour average measured concentration of HCl exceeds the span value the owner or operator shall, within 24 hours before or after, introduce a higher, "above span" HCl reference gas standard to the HCl CEMS. The "above span" reference gas shall meet the requirements of the applicable performance specification and target a concentration level between 50% and 150% of the highest expected hourly concentration measured during the period of measurements above span and shall be introduced at the probe. While this target represents a desired concentration range that is not always achievable in practice, the owner or operator shall demonstrate its intent to meet this range by the value of the reference gas. Expected values may include above span calibrations done before or after the above-span measurement period. The owner or operator shall record and report the results of this procedure as it would for a daily calibration. The "above span" calibration is successful if the value measured by the HCl CEMS is within 20% of the certified value of the reference gas. If the value measured by the HCl CEMS is not within 20% of the certified value of the reference gas, then the owner or operator shall normalize the stack gas values measured above span as described in part

9.9.j.1.B.4. If the "above span" calibration is conducted during the period when measured emissions are above span and the owner or operator fails to collect the one data point in an hour due to the calibration duration, then the owner or operator shall 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 owner or operator is conducting an "above span" calibration and collects one or more data points, the emissions average is represented by the average of all valid data points collected in that hour;

9.9.j.1.B.4. In the event that the "above span" calibration is not successful (i.e., the HCl CEMS measured value is not within 20% of the certified value of the reference gas), then the owner or operator shall 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. Only one "above span" calibration is needed per 24-hour period.

$$\frac{Certified\ reference\ gas\ value}{Measured\ value\ of\ reference\ gas} = Measured\ stack\ gas\ \text{~~result~~} = Normalized\ stack\ gas\ result \qquad Equation\ 6$$

9.9.j.2. The owner or operator shall determine compliance with the mercury emissions limit using a mercury CEMS or integrated sorbent trap monitoring system according to the following requirements:

9.9.j.2.A. The owner or operator shall operate a mercury CEMS system in accordance with performance specification 12A of 40CFR ~~part~~ 60, appendix B or ~~a sorbent trap based~~ an integrated sorbent trap monitoring system in accordance with performance specification 12B of 40CFR ~~part~~ 60, appendix B and the monitoring systems shall be quality assured according to procedure 5 of 40CFR60, appendix F. ~~The duration of the performance test shall be a calendar month. For each calendar month in which the waste-burning kiln operates, the owner or operator shall obtain hourly mercury concentration data and stack gas volumetric flow rate data.~~ For the purposes of emissions calculations when using an integrated sorbent trap monitoring system, the mercury concentration determined for each sampling period shall be assigned to each hour during the sampling period. If the owner or operator chooses to comply with the production-rate based mercury limit for the waste-burning kiln, the owner or operator shall also monitor hourly clinker production and determine the hourly mercury emissions rate in pounds per million ton of clinker produced. The owner or operator shall demonstrate compliance with the mercury emissions limit using a 30-day rolling average of these one-hour mercury concentrations or mass emission rates, including CEMS data during startup and shutdown, as defined in section 2, calculated using equation 19–19 in section 12.4.1 of Method 19 of 40CFR ~~part~~ 60, appendix A–7. CEMS data during startup and shutdown, as defined in section 2, are not corrected to seven percent oxygen and are measured at stack oxygen content;

9.9.j.2.B. Owners or operators using a mercury CEMS or integrated sorbent trap monitoring system to determine mass emission rate shall install, operate, calibrate, and maintain an instrument for continuously measuring and recording the mercury mass emissions rate to the atmosphere according to the requirements of performance specifications ~~6 and 12A~~ of 40CFR ~~part~~ 60, appendix B and ~~quality assurance procedure 6 of 40 CFR Part 60, Appendix F~~ conduct an annual relative accuracy test of the continuous emission rate monitoring system according to section 8.2 of PS 6; and

9.9.j.2.C. The owner or operator of a waste-burning kiln shall 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.

9.9.k. If the owner or operator uses an air pollution control device to meet the emission limitations in section 9, the owner or operator shall conduct an initial and annual inspection of the air pollution control device. The inspection shall include, at a minimum, the following:

9.9.k.1. Inspect air pollution control device(s) for proper operation; and

9.9.k.2. Develop a site-specific monitoring plan according to the requirements in subdivision 9.9.l. This requirement also applies to the owner or operator if the owner or operator petitions the Administrator for alternative monitoring parameters under 40 CFR § 60.13(i).

9.9.l. For each CMS required in this section, the owner or operator shall develop and submit to the Secretary for approval a site-specific monitoring plan according to the requirements of this subdivision that addresses subparagraphs 9.9.l.1.A through 9.9.l.1.F below.

9.9.l.1. The owner or operator shall submit this site-specific monitoring plan at least 60 days before the initial performance evaluation of the continuous monitoring system.

9.9.l.1.A. 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);

9.9.l.1.B. Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer and the data collection and reduction systems;

9.9.l.1.C. Performance evaluation procedures and acceptance criteria (e.g., calibrations);

9.9.l.1.D. Ongoing operation and maintenance procedures in accordance with the general requirements of 40 CFR § 60.11(d);

9.9.l.1.E. Ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR § 60.13; and

9.9.l.1.F. Ongoing recordkeeping and reporting procedures in accordance with the general requirements of 40 CFR §§ 60.7(b), (c) introductory text, (c)(1), (c)(4), (d), (e), (f), and (g).

9.9.l.2. The owner or operator shall conduct a performance evaluation of each continuous monitoring system in accordance with the site-specific monitoring plan.

9.9.l.3. The owner or operator shall operate and maintain the continuous monitoring system in continuous operation according to the site-specific monitoring plan.

9.9.m. If the owner or operator has an operating limit that requires the use of a flow monitoring system, the owner or operator shall meet the requirements in subdivision 9.9.l and paragraphs 9.9.m.1 through 9.9.m.4 below:

9.9.m.1. Install the flow sensor and other necessary equipment in a position that provides a representative flow;

9.9.m.2. Use a flow sensor with a measurement sensitivity at full scale of no greater than two percent;

9.9.m.3. Minimize the effects of swirling flow or abnormal velocity distributions due to upstream and downstream disturbances; and

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

9.9.n. If the owner or operator has an operating limit that requires the use of a pressure monitoring system, the owner or operator shall meet the requirements in subdivision 9.9.l and paragraphs 9.9.n.1

through 9.9.n.6 below:

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

9.9.n.2. Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion;

9.9.n.3. Use a pressure sensor with a minimum tolerance of 1.27 centimeters of water or a minimum tolerance of one percent of the pressure monitoring system operating range, whichever is less;

9.9.n.4. Perform checks at the frequency outlined in the site-specific monitoring plan to ensure pressure measurements are not obstructed (e.g., check for pressure tap ~~pluggage~~ plugging daily);

9.9.n.5. Conduct a performance evaluation of the pressure monitoring system in accordance with the monitoring plan at the time of each performance test, but no less frequently than annually; and

9.9.n.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 the monitoring plan and confirm that the pressure monitoring system continues to meet the performance requirements in the monitoring plan. Alternatively, install and verify the operation of a new pressure sensor.

9.9.o. If the owner or operator has an operating limit that requires a pH monitoring system, the owner or operator shall meet the requirements in subdivision 9.9.1 and paragraphs 9.9.o.1 through 9.9.o.4 below:

9.9.o.1. Install the pH sensor in a position that provides a representative measurement of scrubber effluent pH;

9.9.o.2. Ensure the sample is properly mixed and representative of the fluid to be measured;

9.9.o.3. Conduct a performance evaluation of the pH monitoring system in accordance with the monitoring plan at least once each process operating day; and

9.9.o.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 the monitoring plan at the time of each performance test, but no less frequently than quarterly.

9.9.p. If the owner or operator has an operating limit that requires a secondary electric power monitoring system for an electrostatic precipitator, the owner or operator shall meet the requirements in subdivision 9.9.1 and paragraphs 9.9.p.1 and 9.9.p.2 below:

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

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

9.9.q. If the owner or operator has 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), the owner or operator shall meet the requirements in subdivision 9.9.1 and paragraphs 9.9.q.1 through 9.9.q.2 below:

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

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

9.9.r. If the owner or operator elects to use a fabric filter bag leak detection system to comply with the requirements of section 9, the owner or operator shall install, calibrate, maintain, and continuously operate a bag leak detection system as specified in subdivision 9.9.l and paragraphs 9.9.r.1 through 9.9.r.5 below:

9.9.r.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;

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

9.9.r.3. Conduct a performance evaluation of the bag leak detection system in accordance with the monitoring plan and consistent with the guidance provided in EPA-454/R-98-015 (refer to 40 CFR § 60.17);

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

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

9.9.s. For facilities using a CEMS to demonstrate initial and continuous compliance with the sulfur dioxide emission limit, the owner or operator may demonstrate compliance with the sulfur dioxide emission limit by using the CEMS specified in subdivisions ~~9.10.a through 9.10.r~~ 9.10.1 to measure sulfur dioxide. ~~CEMS data during startup and shutdown, as defined in 40 CFR § 60.2265, are not corrected to seven percent oxygen, and are measured at stack oxygen content. The owner or operator shall calculate a 30-day rolling average of the one-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown as defined in 40 CFR § 60.2265, using Equation 19-19 in Section 12.4.1 of EPA Reference Method 19 at 40 CFR Part 60, Appendix A-7.~~ The owner or operator shall operate the sulfur dioxide CEMS according to ~~Performance Specification 2 in Appendix B of 40 CFR Part 60 and shall follow~~ the procedures and methods specified in ~~this~~ subdivision 9.9.s. 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% of the mean value of the reference method test data in terms of the units of the emission standard, or five parts per million dry volume absolute value of the mean difference between the reference method and the CEMS, whichever is greater.

9.9.s.1. During each relative accuracy test run of the CEMS required by performance specification 2 in appendix B of 40CFR~~part~~ 60, the owner or operator shall 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 below:

9.9.s.1.A. For sulfur dioxide, EPA Reference Method 6 or 6C, or as an alternative ANSI/ASME PTC 19.10-1981 (incorporated by reference, see 40 CFR § 60.17); and

9.9.s.1.B. For oxygen (or carbon dioxide), EPA Reference Method 3A or 3B at 40CFR

~~part~~ 60, appendix A-2, or as an alternative ANSI/ASME PTC 19.10-1981 (incorporated by reference, see 40 CFR § 60.17), as applicable.

9.9.s.2. The span value of the CEMS at the inlet to the sulfur dioxide control device shall be 125% of the maximum estimated hourly potential sulfur dioxide emissions of the unit. The span value of the CEMS at the outlet of the sulfur dioxide control device shall be 50% of the maximum estimated hourly potential sulfur dioxide emissions of the unit.

9.9.s.3. The owner or operator shall conduct accuracy determinations quarterly and calibration drift tests daily in accordance with Procedure 1 in appendix F of 40CFR~~part~~ 60.

9.9.t. For facilities using a CEMS to demonstrate initial and continuous compliance with the nitrogen oxides emission limit, the owner or operator may demonstrate compliance with the nitrogen oxides emission limit by using the CEMS specified in subdivisions 9.10.a through ~~9.10.r~~ 9.10.t to measure nitrogen oxides. ~~CEMS data during startup and shutdown, as defined in 40 CFR § 60.2265, are not corrected to seven percent oxygen, and are measured at stack oxygen content. The owner or operator shall calculate a 30-day rolling average of the one-hour arithmetic average emission concentrations using Equation 19-19 in Section 12.4.1 of EPA Reference Method 19 at 40 CFR Part 60, Appendix A-7.~~ The owner or operator shall operate the nitrogen oxides CEMS according to ~~Performance Specification 2 in Appendix B of 40 CFR Part 60 and shall follow~~ the procedures and methods specified in paragraphs 9.9.t.1 through 9.9.t.4 below:

9.9.t.1. During each relative accuracy test run of the CEMS required by performance specification 2 of appendix B of 40CFR~~part~~ 60, the owner or operator shall 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 subparagraphs 9.9.t.1.A and 9.9.t.1.B below:

9.9.t.1.A. For nitrogen oxides, EPA Reference Method 7 or 7E of 40CFR~~part~~ 60, appendix A-4; and

9.9.t.1.B. For oxygen (or carbon dioxide), EPA Reference Method 3A or 3B at 40CFR ~~part~~ 60, appendix A-2, or as an alternative ANSI/ASME PTC 19.10-1981 (refer to 40 CFR § 60.17), as applicable;

9.9.t.2. The span value of the CEMS shall be 125% of the maximum estimated hourly potential nitrogen oxide emissions of unit;

9.9.t.3. Conduct accuracy determinations quarterly and calibration drift tests daily in accordance with Procedure 1 in appendix F of 40CFR~~part~~ 60; and

9.9.t.4. The owner or operator of an affected facility may request that it determine compliance with the nitrogen oxides emission limit using carbon dioxide measurements corrected to an equivalent of seven percent oxygen. If the owner or operator selects carbon dioxide for use in diluent corrections, the owner or operator shall establish the relationship between oxygen and carbon dioxide levels during the initial performance test according to the procedures and methods specified in subparagraphs 9.9.t.4.A through 9.9.t.4.C below. The owner or operator may reestablish this relationship during performance compliance tests. The owner or operator shall:

9.9.t.4.A. Use the fuel factor equation in Method 3B to determine the relationship between oxygen and carbon dioxide at a sampling location, and use Method 3A, 3B or, as an alternative, ANSI/ASME PTC 19.10-1981 (refer to 40 CFR § 60.17), as applicable, to determine the oxygen concentration at the same location as the carbon dioxide monitor;

9.9.t.4.B. Take samples for at least 30 minutes in each hour. Each sample shall represent a one-hour average;

9.9.t.4.C. Perform a minimum of three runs.

9.9.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 section 9, the owner or operator shall complete the ~~following~~ requirements in paragraphs 9.9.u.1 and 9.9.u.2:

9.9.u.1. Demonstrate compliance with the appropriate emission limit(s) using a 30-day rolling average of one-hour arithmetic average emission concentrations, including CEMS or an integrated sorbent trap monitoring system data during startup and shutdown, as defined in ~~40 CFR § 60.2265~~ section 2 of this rule, calculated using Equation 19-19 in section 12.4.1 of EPA Reference Method 19 at 40CFR~~part~~ 60, appendix A-7. ~~CEMS data during startup and shutdown, as defined in 40 CFR § 60.2265, are not corrected to seven percent oxygen and are measured at stack oxygen content~~

9.9.u.1.A. Calculate the 1-hour arithmetic averages for CEMS using the data points required under 40CFR §60.13(e)(2). The 1-hour arithmetic averages used to calculate the 30-day rolling average emission concentrations shall be corrected to 7 percent oxygen (dry basis) except for CEMS or integrated sorbent trap monitoring system data during startup and shutdown.

9.9.u.1.B. Measure the integrated sorbent trap monitoring system or CEMS data during startup and shutdown, as defined in section 2, at stack oxygen content. This data shall not be corrected to 7 percent oxygen; and

9.9.u.2. Operate all CEMS and integrated sorbent trap monitoring systems in accordance with the applicable procedures under appendices B and F of 40CFR~~Part~~ 60.

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

9.9.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, the owner or operator shall install, operate, and maintain an oxygen analyzer system as defined in ~~40 CFR § 60.2265~~section 2 according to the procedures in paragraphs 9.9.w.1 through 9.9.w.4 below:

9.9.w.1. Install the oxygen analyzer system by the initial performance test date as specified in subdivision 9.6.c through paragraph 9.6.k.5;

9.9.w.2. Operate the oxygen trim system in compliance with paragraph 9.9.w.3 at all times;

9.9.w.3. 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 ~~(~~carbon monoxide~~)~~ (CO) performance test; and

9.9.w.4. 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 A7 of 40CFR~~part~~ 60.

9.9.x. For energy recovery units with annual average heat input rates greater than or equal to 250 MMBtu/hour and waste-burning kilns, the owner or operator shall install, calibrate, maintain, and operate a PM CPMS and record the output of the system as specified in paragraphs 9.9.x.1 through 9.9.x.8 below. For other energy recovery units, the owner or operator 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). As stated above, the owner shall:

9.9.x.1. Install, calibrate, operate, and maintain the PM CPMS according to the procedures in approved site-specific monitoring plan developed in accordance with subdivision 9.9.1 and subparagraphs

9.9.x.1.A through 9.9.x.1.C;

9.9.x.1.A. The owner or operator shall base the operating principle of the PM CPMS on in-stack or extractive light scatter, light scintillation, beta attenuation or mass accumulation of the exhaust gas or representative sample. The owner or operator shall express the reportable measurement output from the PM CPMS as milliamps or the digital signal equivalent;

9.9.x.1.B. The PM CPMS shall have a cycle time (i.e., period required to complete sampling, measurement, and reporting for each measurement) no longer than 60 minutes; and

9.9.x.1.C. The PM CPMS shall be capable of detecting and responding to particulate matter concentrations increments no greater than 0.5 mg/actual cubic meter.

9.9.x.2. During the initial performance test or any subsequent performance test that demonstrates compliance with the PM limit, adjust the site-specific operating limit in accordance with the results of the performance test according to the procedures specified in subdivision 9.6.c through paragraph 9.6.k.5 of this rule;

9.9.x.3. Collect PM CPMS hourly average output data for all energy recovery unit or waste-burning kiln operating hours and express the PM CPMS output as milliamps or the digital signal equivalent;

9.9.x.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);

9.9.x.5. 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 subparagraph 9.9.x.1.B, 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 the site-specific monitoring plan;

9.9.x.6. Use all the data collected during all energy recovery unit or waste-burning kiln operating hours in assessing compliance with the operating limit except:

9.9.x.6.A. 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 (report any such periods in the annual deviation report); or

9.9.x.6.B. Any data collected during periods when the monitoring system is out of control as specified in the 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 (report emissions or operating levels and report any such periods in the annual deviation report); or

9.9.x.6.C. Any PM CPMS data recorded during periods of CEMS data during startup and shutdown, as defined in ~~40 CFR § 60.2265~~ section 2.

9.9.x.7. 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 the site-specific monitoring plan; and

9.9.x.8. For any deviation of the 30-day rolling average PM CPMS average value from the established operating parameter limit, the owner or operator shall:

9.9.x.8.A. Within 48 hours of the deviation, visually inspect the air pollution control device;

9.9.x.8.B. 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; and

9.9.x.8.C. 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 emission control device~~. Within 45 days of the deviation, the owner or operator shall re-establish the CPMS operating limit. The owner or operator is 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 subparagraph~~ subdivision 9.9.x.

9.9.x.8.D. PM CPMS deviations leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a violation of section 9.

9.9.y. When there is an alkali bypass or an in-line coal mill that exhausts 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, the owner or operator shall:

9.9.y.1. ~~(1)~~ Calculate a kiln-specific emission limit using Equation 7:

$$C_{ks} = \frac{\left((Emission\ limit\ x\ (Q_{ab} + Q_{cm} + Q_{ks})) - (Q_{ab}\ x\ C_{ab}) - (Q_{cm}\ x\ C_{cm})\right)}{Q_{ks}} \quad Equation\ 7$$

C_{ks} = Kiln stack concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O_2)
Q_{ab} = Alkali bypass flow rate (volume/hr)
C_{ab} = Alkali bypass concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O_2)
Q_{cm} = In-line coal mill flow rate (volume/hr)
C_{cm} = In-line coal mill concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O_2)
Q_{ks} = Kiln stack flow rate (volume/hr)

9.9.y.2. Measure particulate matter concentration downstream of the in-line coal mill and measure all other pollutant concentrations either upstream or downstream of the in-line coal mill; and

9.9.y.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 inline coal mill stack, the owner or operator may use the results of the initial and subsequent performance test to demonstrate compliance with the relevant emissions limit. The owner or operator shall conduct a performance test on an annual basis (between 11 and 13 calendar months following the previous performance test).

9.9.z. Timing of performance tests and control device inspections. The owner or operator shall:

9.9.z.1. Conduct annual performance tests between 11 and 13 calendar months of the previous performance test;

9.9.z.2. Conduct the air pollution control device inspections on an annual basis (but no more than 12 months following the previous annual air pollution control device inspection) and complete the air

pollution control device inspection as described in subdivisions 9.8.e and 9.8.f above;

9.9.z.3. Conduct annual performance tests according to the schedule specified in ~~subdivision 9.9.x~~ paragraph 9.9.z.1, with the following exceptions:

9.9.z.3.A. The owner or operator may conduct a repeat performance test at any time to establish new values for the operating limits ~~to apply from that point forward~~, as specified in subdivision 9.9.aa. New operating limits become effective on the date the owner operator submits the performance test report to the EPA's Central Data Exchange or postmarked, per the requirements of paragraph 9.12.j.2. The Secretary may request a repeat performance test at any time;

9.9.z.3.B. The owner or operator shall repeat the performance test within 60 days of a process change, as defined in section 2 and;

9.9.z.3.C. ~~If the initial or any subsequent performance test for any pollutant in Table 45-18F or Tables 45-18J through 45-18M, as applicable, demonstrates that the emission level for the pollutant is no greater than the emission level specified in parts 9.9.z.3.C.1 or 9.9.z.3.C.2, as applicable, and the owner or operator is not required to conduct a performance test for the pollutant in response to a request by the Secretary in subparagraph 9.9.z.3.A or a process change in subparagraph 9.9.z.3.B, the owner or operator may elect to skip conducting a performance test for the pollutant for the next two years. The owner or operator shall conduct a performance test for the pollutant during the third year and no more than 37 months following the previous performance test for the pollutant. For cadmium and lead, the owner or operator shall emit both cadmium and lead at emission levels no greater than the respective emission levels specified in part 9.9.z.3.C.1 in order to qualify for less frequent testing under paragraph 9.9.z.3.~~ The owner or operator may conduct performance tests less often if the following conditions are met. For at least two consecutive performance tests, the results from the performance tests demonstrate the emission level for the pollutant is greater than the emission level specified in part 9.9.z.3.C.1 or 9.9.z.3.C.2; there is not a change in the operation of the affected source or air pollution control equipment that could increase emissions; and the owner or operator is not required to conduct a performance test for the pollutant in response to a request by the Secretary in part 9.9.z.3.A or a process change in subparagraph 9.9.z.3.B. If these conditions are met, the owner or operator is not required to conduct a performance test for that pollutant for the next two years. The owner or operator shall conduct a performance test for the pollutant no later than 37 months from the previous performance test for the pollutant. If the emission level for the CISWI unit continues to meet the emission level specified in part 9.9.z.3.C.1 or 9.9.z.3.C.2, the owner or operator may conduct performance tests for the pollutant every third year if there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions. Each such performance test shall be conducted no later than 37 months from the previous performance test.

9.9.z.3.C.1. For particulate matter, hydrogen chloride, mercury, carbon monoxide, nitrogen oxides, sulfur dioxide, cadmium, lead, and dioxins/furans, the emission level equal to 75~~%~~ percent of the applicable emission limit in Table 45-18F or Tables 45-18J through 45-18M, as applicable; and

9.9.z.3.C.2. For fugitive emissions, visible emissions (of combustion ash from the ash conveying system) for two percent of the time during each of the three one-hour observation periods.

9.9.z.3.D. If the owner or operator is conducting less frequent testing for a pollutant as provided in subparagraph 9.9.z.3.C, and a subsequent performance test for the pollutant indicates that the CISWI unit does not meet the emission level specified in parts 9.9.z.3.C.1 or 9.9.z.3.C.2, as applicable, the owner or operator shall conduct annual performance tests for the pollutant according to the schedule specified in paragraph 9.9.z.3 until the facility qualifies for less frequent testing for the pollutant as specified in subparagraph 9.9.z.3.C.

9.9.aa. Repeat performance test to establish new operating limits.

9.9.aa.1. The owner or operator may conduct a repeat performance test at any time to establish

new values for the operating limits. The Secretary may request a repeat performance test at any time.

9.9.aa.2. The owner or operator shall repeat the performance test if the feed stream is different than the feed streams used during any performance test used to demonstrate compliance.

9.10. Monitoring equipment and parameters.

9.10.a. If the owner or operator is using a wet scrubber to comply with the emission limitation under subdivisions 9.6.a and 9.6.b, the owner or operator shall 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 45-18G. These devices (or methods) shall measure and record the values for these operating parameters at the frequencies indicated in Table 45-18G at all times, except as specified in paragraph ~~9.10.s.1~~ 9.10.u.1.

9.10.b. If the owner or operator uses a fabric filter to comply with the requirements of section 9 and does not use a PM CPMS or PM CEMS for monitoring PM compliance, the owner or operator shall install, calibrate, maintain, and continuously operate a bag leak detection system as specified in paragraphs 9.10.b.1 through 9.10.b.8 below:

9.10.b.1. Install and operate a bag leak detection system for each exhaust stack of the fabric filter;

9.10.b.2. Each bag leak detection system shall be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations;

9.10.b.3. The bag leak detection system shall be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of ten milligrams per actual cubic meter or less;

9.10.b.4. The bag leak detection system sensor shall provide output of relative or absolute particulate matter loadings;

9.10.b.5. The bag leak detection system shall be equipped with a device to continuously record the output signal from the sensor;

9.10.b.6. The bag leak detection system shall be equipped with an alarm system that will alert automatically when it detects an increase in relative particulate matter emission over a preset level. The alarm shall be located where it is observed easily by plant operating personnel;

9.10.b.7. For positive pressure fabric filter systems, a bag leak detection system shall be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector shall be installed downstream of the fabric filter; and

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

9.10.c. If the owner or operator is 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 subdivisions 9.6.a and 9.6.b, the owner or operator shall 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 subdivisions 9.6.l ~~through 9.6.m~~.

9.10.d. If the owner or operator uses activated carbon injection to comply with the emission limitations in section 9, the owner or operator shall measure the minimum sorbent flow rate once per hour.

9.10.e. If the owner or operator uses selective noncatalytic reduction to comply with the emission

limitations, the owner or operator shall complete the following:

9.10.e.1. Following the date on which the initial performance test is completed or is required to be completed under subsection 9.7 ~~through paragraph 9.7.j.3~~, 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 the CISWI unit) or the minimum reagent flow rate measured as three-hour block averages at all times.

9.10.e.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.

9.10.f. If the owner or operator uses an electrostatic precipitator to comply with the emission limits of section 9 and the owner or operator does not use a PM CPMS for monitoring PM compliance, the owner or operator shall monitor the secondary power to the electrostatic precipitator collection plates and maintain the three-hour block averages at or above the operating limits established during the mercury or particulate matter performance test.

9.10.g. For waste-burning kilns not equipped with a wet scrubber or dry scrubber, ~~in place of hydrogen chloride testing with EPA Method 321 at 40 CFR Part 63, Appendix A, an~~ the owner or operator shall install, calibrate, maintain, and operate a CEMS for monitoring hydrogen chloride emissions discharged to the atmosphere as specified in subdivision 9.9.j and record the output of the system. The owner or operator may substitute use of a HCl CEMS for conducting the HCl initial and annual testing with EPA Method 321 at 40CFR63, appendix A. To demonstrate continuous compliance with the hydrogen chloride emissions limit 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~~, monitoring the minimum hydrogen chloride sorbent flow rate and monitoring the minimum scrubber liquor pH~~. For units equipped with a hydrogen chloride CEMS, the owner or operator is not required to monitor minimum hydrogen chloride sorbent flow rate, minimum scrubber liquor pH, and minimum injection rate.

9.10.h. To demonstrate continuous compliance with the particulate matter emissions limit, a facility may substitute use of either a particulate matter CEMS or a particulate matter CPMS for conducting the particulate matter annual performance test ~~and f~~. For units equipped with a particulate matter CEMS, the owner or operator is not required to use other CMS monitoring for PM compliance (e.g., bag leak detectors, ESP secondary power, PM scrubber pressure). The owner or operator may also substitute use of a particulate matter CEMS for conducting the PM initial performance test.

9.10.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 test. The owner or operator shall record the output of the system and analyze the sample according to EPA Method 23 at 40CFR ~~part~~ 60, appendix A-7. 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 40CFR ~~part~~ 60, appendix A-7, shall install, calibrate, maintain, and operate a continuous automated sampling system and shall comply with the requirements specified in 40 CFR §§ 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.

9.10.j. To demonstrate initial and continuous compliance with the mercury emissions limit, a facility may substitute use of a ~~continuous automated sampling system~~mercury CEMS or an integrated sorbent trap monitoring system for the mercury initial and annual performance test. ~~The owner or operator shall record the output of the system and analyze the sample at set intervals using any suitable determinative technique that can meet Performance Specification 12B criteria. This option to use a continuous automated~~

~~sampling system takes effect on the date a final performance specification applicable to mercury from monitors is published in the Federal Register.~~ The owner or operator who elects to continuously ~~sample~~measure mercury emissions instead of sampling and testing using EPA Method 29 or 30B at 40CFR ~~part~~ 60, appendix A-8, ASTM D6784-02 (Reapproved 2008) ~~(incorporated by reference, see 40 CFR § 60.17)~~, or an approved alternative method for measuring mercury emissions, shall install, calibrate, maintain, and operate ~~a continuous automated sampling system~~ the mercury CEMS or integrated sorbent trap monitoring system and shall comply with ~~the requirements specified in 40 CFR §§ 60.58b(p) and (q)~~ performance specification 12A or performance specification 12B of appendix B to 40CFR60, respectively, and quality assurance procedure 5 of appendix F to 40CFR60. ~~A facility may substitute continuous mercury monitoring for the minimum sorbent flow rate, if activated carbon sorbent injection is used solely for compliance with the mercury emission limit.~~ If an owner or operator uses an integrated sorbent trap monitoring system to calculate emissions, the mercury concentration determined for each sampling period shall be assigned to each hour during the sampling period. For units equipped with a mercury CEMS or an integrated sorbent trap monitoring system, the owner or operator is not required to monitor the minimum sorbent flow rate if activated carbon sorbent injection is used solely for compliance with the mercury emission limit. An owner or operator of a waste-burning kiln shall install, calibrate, maintain, and operate a mercury CEMS or an integrated sorbent trap monitoring system as specified in subdivision 9.9.j.

9.10.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, the owner or operator is not required to monitor the charge rate, secondary chamber temperature and reagent flow for selective noncatalytic reduction. The owner or operator shall:

9.10.k.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 owner or operator shall follow the requirements under performance specification 2 of appendix B of 40CFR ~~part~~ 60, the Quality Assurance Procedure 1 of appendix F of 40CFR ~~part~~ 60, and the procedures under 40 CFR § 60.13 for installation, evaluation, and operation of the CEMS.

9.10.k.2. ~~Following the date that the initial performance test for nitrogen oxides is completed or is required to be completed under subsection 9.7 through paragraph 9.7.j.3, the owner or operator shall d~~Determine compliance with the emission limit for nitrogen oxides ~~required under 40 CFR § 60.52b(d)~~ based on the 30-day rolling average of the hourly emission concentrations using CEMS outlet data in accordance with subdivision 9.9.u. ~~The owner or operator shall express the one-hour arithmetic averages in parts per million by volume corrected to seven percent oxygen (dry basis) and used to calculate the 30-day rolling average concentrations. CEMS data during startup and shutdown are not corrected to seven percent oxygen and are measured at stack oxygen content. The owner or operator shall calculate the one-hour arithmetic averages using the data points required under 40 CFR § 60.13(e)(2).~~

9.10.l. To demonstrate initial and continuous compliance with the sulfur dioxide emissions limit, ~~a facility~~ the owner or operator may substitute use of a ~~continuous automated sampling system~~ CEMS for the sulfur dioxide initial and annual performance test.

9.10.l.1. The owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system. The owner or operator shall follow the requirements under performance specification 2 of appendix B of 40CFR ~~part~~ 60, the Quality Assurance requirements of Procedure 1 of appendix F of 40CFR ~~part~~ 60, and the procedures under 40 CFR § 60.13 for installation, evaluation, and operation of the CEMS.

9.10.l.2. ~~Following the date that the initial performance test for sulfur dioxide is completed or is required to be completed under subsection 9.7 through paragraph 9.7.j.3, T~~The owner or operator may demonstrate compliance with the sulfur dioxide emission limit based on the 30-day rolling average of the hourly arithmetic average emission concentrations using CEMS outlet data in accordance with subdivision 9.9.u. ~~The owner or operator shall express the one-hour arithmetic averages in parts per million corrected~~

~~to seven percent oxygen (dry basis) and used to calculate the 30-day rolling average emission concentrations. CEMS data during startup and shutdown are not corrected to seven percent oxygen and are measured at stack oxygen content. The owner or operator shall calculate the one-hour arithmetic averages using the data points required under 40 CFR § 60.13(e)(2).~~

9.10.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, or particulate matter CEMS, or particulate matter CPMS, the owner or operator shall install, operate, certify, and maintain a continuous opacity monitoring system according to the procedures in paragraphs 9.10.m.1 through 9.10.m.5 by the compliance date specified in subdivisions 9.6.a. and 9.6.b. Energy recovery units that use a particulate matter CEMS to demonstrate initial and continuing compliance according to the procedures in subdivision 9.10.n are not required to install a continuous opacity monitoring system and shall perform the annual performance tests for opacity consistent with subdivision 9.9.f. The owner or operator shall:

9.10.m.1. Install, operate, and maintain each continuous opacity monitoring system according to performance specification 1 at 40CFR ~~part~~ 60, appendix B;

9.10.m.2. Conduct a performance evaluation of each continuous opacity monitoring system according to the requirements in 40 CFR § 60.13 and according to performance specification 1 at 40CFR ~~part~~ 60, appendix B;

9.10.m.3. As specified in 40 CFR § 60.13(e)(1), for each continuous opacity monitoring system, complete a minimum of one cycle of sampling and analyzing for each successive ten-second period and one cycle of data recording for each successive six-minute period;

9.10.m.4. Reduce the continuous opacity monitoring system data as specified in 40 CFR § 60.13(h)(1); and

9.10.m.5. Determine and record all the six-minute averages (and one-hour block averages as applicable) collected.

9.10.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 40CFR ~~part~~ 60, appendix A-3 or ~~, as applicable,~~ monitors with a particulate matter CPMS according to subdivision 9.10.r. shall install, calibrate, maintain, and operate a PM CEMS and shall comply with the requirements specified in paragraphs 9.10.n.1 through ~~9.10.n.13~~ 9.10.n.10.

9.10.n.1. ~~Notify the Secretary one month before starting use of the system~~The owner or operator shall install, evaluate, and operate the PM CEMS per the requirements of performance specification 11 of appendix B of 40CFR60 and the quality assurance requirements of procedure 2 of appendix F of 40CFR60 and §60.13.

9.10.n.2. ~~Notify the Secretary one month before stopping use of the system~~The owner or operator shall complete the initial performance evaluation no later than 180 days after the final compliance date for meeting the amended emission limitations, as specified under subsection 9.7 or within 180 days of notification to the Secretary of use of the continuous monitoring system if the owner or operator was previously determining compliance by Method 5 at 40CFR60, appendix A-3 performance tests, whichever is later.

9.10.n.3. ~~Install, evaluate and operate the monitor in accordance with the requirements of Performance Specification 11 of Appendix B of 40 CFR Part 60 and the quality assurance requirements of~~

~~Procedure 2 of Appendix F of 40 CFR Part 60 and 40 CFR § 60.13~~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 shall be established according to the procedures and methods specified in subparagraphs 9.9.t.4.A through C.

9.10.n.4. ~~Complete no later than 180 days after the final compliance date for meeting the amended emission limitations, as specified under subsection 9.7 through paragraph 9.7.j.3, or within 180 days of notification to the Secretary of use of the continuous monitoring system, if the owner or operator was previously determining compliance by Method 5 at 40 CFR Part 60, Appendix A-3 performance tests, whichever is later.~~The owner or operator of an affected facility shall conduct an initial performance test for particulate matter emissions. If the owner or operator elects to demonstrate compliance using the PM CEMS and the initial performance test has not yet been conducted, the owner or operator shall determine initial compliance using the CEMS specified in subdivision 9.10.n to measure particulate matter. The owner or operator shall calculate a 30-day rolling average of 1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown, as defined in section 2, using equation 19-19 in section 12.4.1 of EPA Reference Method 19 at 40CFR60, appendix A-7.

9.10.n.5. ~~The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of seven percent oxygen. The owner or operator shall establish the relationship between oxygen and carbon dioxide levels for the affected facility according to the procedures and methods specified in subparagraphs 9.9.t.4.A through 9.9.t.4.D of this rule.~~The owner or operator shall determine continuous compliance with the particulate matter emission limit based on the 30-day rolling average calculated using equation 19-19 in section 12.4.1 of EPA Reference Method 19 at 40CFR60, appendix A-7 from the 1-hour arithmetic average of the CEMS outlet data.

9.10.n.6. ~~The owner or operator of an affected facility shall conduct an initial performance test for particulate matter emissions as required under subsection 9.7 through paragraph 9.7.j.3. The owner or operator shall determine compliance with the particulate matter emission limit, if PM CEMS are elected for demonstrating compliance, by using the CEMS specified in subdivision 9.10.n to measure particulate matter. The owner or operator shall calculate a 30-day rolling average of one-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown using Equation 19-19 in Section 12.4.1 of EPA Reference Method 19 at 40 CFR Part 60, Appendix A-7.~~At a minimum, the owner or operator shall obtain valid continuous monitoring system hourly averages as specified in subdivision 9.10.u.

9.10.n.7. ~~The owner or operator shall determine compliance with the particulate matter emission limit 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 one-hour arithmetic average of the CEMS outlet data.~~The 1-hour arithmetic averages required under paragraph 9.10.n.5 shall be expressed in milligrams per dry standard cubic meter corrected to 7 percent oxygen (or carbon dioxide)(dry basis) and shall be used to calculate the 30-day rolling average emission concentrations. CEMS data during startup and shutdown, as defined in section 2, shall not be corrected to 7 percent oxygen, and shall be measured at stack oxygen content. The owner or operator shall calculate the 1-hour arithmetic averages using the data points required under 40CFR § 60.13(e)(2).

9.10.n.8. ~~At a minimum, the owner or operator shall obtain valid continuous monitoring system hourly averages as specified in subdivision 9.10.s~~The owner or operator shall use all valid CEMS data in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph 9.10.n.6 are not met.

9.10.n.9. ~~The owner or operator shall express the one-hour arithmetic averages required under paragraph 9.10.n.7 in milligrams per dry standard cubic meter corrected to seven percent oxygen (or carbon dioxide) (dry basis), and the owner or operator shall use the one-hour arithmetic averages to calculate the~~

~~30-day rolling average emission concentrations. CEMS data during startup and shutdown are not corrected to seven percent oxygen and are measured at stack oxygen content. The owner or operator shall calculate the one-hour arithmetic averages using the data points required under 40 CFR § 60.13(e)(2).~~The owner or operator shall operate the CEMS according to performance specification 11 in appendix B of 40CFR60.

9.10.n.10. ~~The owner or operator shall use all valid CEMS data in calculating average emission concentrations, even if the minimum CEMS data requirements of paragraph 9.10.n.8 are not met.~~The owner or operator shall conduct quarterly and yearly accuracy audits and daily drift, system optics, and sample volume checks in accordance with Procedure 2 in appendix F of 40CFR60.

~~9.10.n.11. The owner or operator shall operate the continuous CEMS according to Performance Specification 11 in Appendix B of 40 CFR Part 60.~~

~~9.10.n.12. During each relative accuracy test run of the CEMS required by Performance Specification 11 in Appendix B of 40 CFR Part 60, the owner or operator shall collect the particulate matter and oxygen (or carbon dioxide) data concurrently (or within a 30- to 60-minute period) by both the CEMS and the following test methods:~~

~~9.10.n.12.A. For particulate matter, EPA Reference Method 5 at 40 CFR Part 60, Appendix A-3.~~

~~9.10.n.12.B. For oxygen (or carbon dioxide), EPA Reference Method 3A or 3B at 40 CFR Part 60, Appendix A-2, as applicable.~~

~~9.10.n.13. The owner or operator shall perform quarterly accuracy determinations and daily calibration drift tests in accordance with Procedure 2 in Appendix F of 40 CFR Part 60.~~

9.10.o. To demonstrate initial and continuous compliance with the carbon monoxide emissions limit, a facility may substitute use of a ~~continuous automated sampling system~~CEMS for the carbon monoxide initial and annual performance test to demonstrate compliance with the carbon monoxide emissions limits.

9.10.o.1. The owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring carbon monoxide emissions discharged to the atmosphere and record the output of the system. The owner or operator shall follow the requirements under performance specification 4A or 4B of appendix B of 40CFR~~Part~~60, the quality assurance procedure 1 of appendix F of 40CFR~~Part~~60, and the procedures under 40CFR § 60.13 for installation, evaluation, and operation of the CEMS.

9.10.o.2. ~~Following the date that the initial performance test for carbon monoxide is completed or is required to be completed under subsection 9.7 through paragraph 9.7.j.3,~~ The owner or operator ~~may~~ shall determine compliance with the carbon monoxide emission limit based on the 30-day rolling average of the hourly arithmetic average emission concentrations, including CEMS data during startup and shutdown, using CEMS outlet data per subdivision 9.9.u. ~~Except for CEMS data during startup and shutdown, the owner or operator shall express the one-hour arithmetic averages in parts per million corrected to seven percent oxygen (dry basis) and used to calculate the 30-day rolling average emission concentrations. CEMS data during startup and shutdown are not corrected to seven percent oxygen and are measured at stack oxygen content. The owner or operator shall calculate the one-hour arithmetic averages using the data points required under 40 CFR § 60.13(e)(2).~~

9.10.p. The owner or 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.

9.10.q. For energy recovery units with a heat input capacity of 100 MMBtu/hr or greater that do not use a carbon monoxide ~~continuous emission monitoring system~~CEMS, the owner or operator shall

install, operate, and maintain the continuous oxygen monitoring system according to the procedures in paragraphs 9.10.q.1 through 9.10.q.4 ~~by the compliance date specified in Table 45-18E. The owner or operator shall monitor oxygen level at the outlet of the energy recovery unit~~.

9.10.q.1. The owner or operator shall install the oxygen analyzer system by the initial performance test date specified in section 9.6;

9.10.q.2. The owner or operator shall operate the oxygen trim system in compliance with paragraph 9.10.q.3 at all times;

9.10.q.3. The owner or operator shall maintain the oxygen level such that the 30-day rolling average that is established as the operating limit for oxygen according to paragraph 9.10.q.4 is not below the lowest hourly average oxygen concentration measured during the most recent CO performance test; and

9.10.q.4. The owner or operator shall 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 40CFR ~~Part~~ 60.

9.10.r. For energy recovery units with annual average heat input rates greater than or equal to 250 MMBtu/hour and waste-burning kilns, the owner or operator shall install, calibrate, maintain, and operate a PM CPMS and record the output of the system as specified in paragraphs 9.10.r.1 through 9.10.r.8 below. For other energy recovery units, the owner or operator 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). The owner or operator shall:

9.10.r.1. Install, calibrate, operate, and maintain the PM CPMS according to the procedures in the approved site-specific monitoring plan developed in accordance with subdivision 9.9.1 and subparagraphs 9.10.r.1.A through 9.10.r.1.C:

9.10.r.1.A. The owner or operator shall base the operating principle of the PM CPMS on in-stack or extractive light scatter, light scintillation, beta attenuation or mass accumulation of the exhaust gas or representative sample. The owner or operator shall express the reportable measurement output from the PM CPMS as milliamps ~~.~~ or the digital signal equivalent;

9.10.r.1.B. The PM CPMS shall have a cycle time (i.e., period required to complete sampling, measurement, and reporting for each measurement) no longer than 60 minutes ~~.~~; and

9.10.r.1.C. The PM CPMS shall be capable of detecting and responding to particulate matter concentrations increments no greater than 0.5 mg/actual cubic meter.

9.10.r.2. During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, adjust the site-specific operating limit in accordance with the results of the performance test according to the procedures specified in subdivisions 9.6.c through ~~paragraph 9.6.k.5~~ 9.6.k;

9.10.r.3. Collect PM CPMS hourly average output data for all energy recovery unit or waste-burning kiln operating hours and express the PM CPMS output as milliamps or the digital signal equivalent; and

9.10.r.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).

9.10.r.5. The owner or operator shall 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 subparagraph 9.10.r.1.B,

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 the site-specific monitoring plan.

9.10.r.6. The owner or operator shall use all the data collected during all energy recovery unit or waste-burning kiln operating hours in assessing compliance with the operating limit, except that the owner or operator shall not use the following in these calculations:

9.10.r.6.A. 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 (report any such periods in the annual deviation report); or

9.10.r.6.B. Any data collected during periods when the monitoring system is out of control as specified in the 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 (report emissions or operating levels and report any such periods in the annual deviation report); or

9.10.r.6.C. Any PM CPMS data recorded during periods of CEMS data during startup and shutdown.

9.10.r.7. The owner or operator shall record and make available to the Secretary upon request results of PM CPMS system performance audits, as well as the dates and 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 the site-specific monitoring plan.

9.10.r.8. For any deviation of the 30-day rolling average PM CPMS average value from the established operating parameter limit, the owner or operator shall:

9.10.r.8.A. Within 48 hours of the deviation, visually inspect the air pollution control device;

9.10.r.8.B. 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;~~, and~~

9.10.r.8.C. 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 emission control device(s). Within 45 days of the deviation, the owner or operator shall re-establish the CPMS operating limit. The owner or operator is 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 subparagraph~~.~~; and

9.10.r.8.D. PM CPMS deviations leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a violation of section 9.

~~9.10.r.9~~ 9.10.s. If the owner or operator uses a dry scrubber to comply with the emission limits of section 9, the owner or operator shall monitor the injection rate of each sorbent and maintain the three-hour block averages at or above the operating limits established during the hydrogen chloride performance test.

9.10.t. If the owner or operator is required to monitor clinker production because the owner or operator complies with the production-rate based mercury limit for the waste-burning kiln, the owner or

operator shall:

9.10.t.1. Determine the hourly clinker production by one of the two methods below:

9.10.t.1.a. 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 owner or operator shall maintain the system of measuring hourly clinker production within ±5 percent accuracy, or

9.10.t.1.b. 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 owner or operator shall maintain the system of measuring feed within ±5 percent accuracy. Calculate the 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. If this ratio changes at clinker reconciliation, the owner or operator shall use the new ratio going forward, but the owner or operator does not have to retroactively change clinker production rates previously estimated.

9.10.t.2. Determine the accuracy of the system of measuring hourly clinker production (or feed mass flow if applicable) before the final compliance date established in subdivision 9.3.b and during each quarter of source operation.

9.10.t.3. Conduct accuracy checks in accordance with the procedures outlined in the site-specific monitoring plan per subdivision 9.9.l.

~~9.10.s~~ 9.10.u. Monitoring data. -- For each continuous monitoring system required or optionally allowed under subdivisions 9.10.a through ~~9.10.r~~ 9.10.t, the owner or operator shall monitor and collect data according to the following:

~~9.10.s.1~~ 9.10.u.1. The owner or operator shall 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 paragraph 9.12.e.15), 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. The owner or operator is required to affect 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.

~~9.10.s.2~~ 9.10.u.2. The owner or operator may not use data recorded during the monitoring system malfunctions, 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. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system.

~~9.10.s.3~~ 9.10.u.3. 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.

9.11. Recordkeeping requirements. -- The owner or operator shall maintain the items (as applicable) as specified in subdivisions 9.11.a, 9.11.b, and subdivisions 9.11.e through 9.11.w for a period of at least five years:

9.11.a. Calendar date of each record;

9.11.b. Records of the data described in paragraphs 9.11.b.1 through ~~9.11.b.6~~ 9.11.b.7:

9.11.b.1. The CISWI unit charge dates, times, weights, and hourly charge rates;

9.11.b.2. Liquor flow rate to the wet scrubber inlet every 15 minutes of operation, as applicable;

9.11.b.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;

9.11.b.4. Liquor pH as introduced to the wet scrubber every 15 minutes of operation, as applicable;

9.11.b.5. For affected CISWI units that establish operating limits for controls other than wet scrubbers under subdivisions 9.6.f through 9.6.i or subdivisions 9.6.l ~~through 9.6.m~~, the owner or operator shall 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, the owner or operator shall also maintain records of the load fraction and corresponding sorbent injection rate records; and

9.11.b.6. If the owner or operator uses a fabric filter to comply with the emission limitations, the owner or operator shall record the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. The owner or operator shall also record the percent of operating time during each six-month period that the alarm sounds, calculated as specified in subdivision 9.6.e.

9.11.b.7. If the owner or operator monitors clinker production in accordance with subdivision 9.10.t:

9.11.b.7.a. Hourly clinker rate produced if clinker production is measured directly;

9.11.b.7.b. Hourly measured kiln feed rates and calculated clinker production rates if clinker production is not measured directly;

9.11.b.7.c. 30-day rolling averages for mercury in pounds per million tons of clinker produced; and

9.11.b.7.d. The initial and quarterly accuracy of the system of measuring hourly clinker production (or feed mass flow).

9.11.c. Reserved.

9.11.d. Reserved.

9.11.e. Identification of calendar dates and times for which data show a deviation from the operating limits in Table 45-18G or a deviation from other operating limits established under subdivisions 9.6.f through 9.6.i or subdivisions 9.6.l ~~through 9.6.m~~, with a description of the deviations, reasons for the deviations, and a description of corrective actions taken;

9.11.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;

9.11.g. Records showing the names of CISWI unit operators who have completed review of the information in subdivision 9.5.h as required by subdivision 9.5.i, including the date of the initial review and

all subsequent annual reviews;

9.11.h. Records showing the names of the CISWI operators who have completed the operator training requirements under subdivisions 9.5.a and 9.5.b, met the criteria for qualification under subdivisions 9.5.d and 9.5.e, and maintained or renewed their qualification under subdivisions 9.5.f or 9.5.g. Records shall 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;

9.11.i. For each qualified operator, the phone and/or cell phone number at which he or she can be reached during operating hours;

9.11.j. Records of calibration of any monitoring devices as required under subdivisions 9.10.a through 9.10.r;

9.11.k. Equipment vendor specifications and related operation and maintenance requirements for the incinerator, emission controls, and monitoring equipment;

9.11.l. The information listed in subdivision 9.5.h;

9.11.m. A daily log of the quantity of waste burned and the types of waste burned (always required);

9.11.n. Records of the annual air pollution control device inspections that are required for each CISWI unit subject to the emissions limits in Table 45-18F or Tables 45-18J through 45-18M and records of any required maintenance and any repairs not completed within ten days of an inspection or the timeframe established by the Secretary;

9.11.o. For continuously monitored pollutants or parameters, document and keep records of the following parameters measured using continuous monitoring systems. If emissions are monitored with a CEMS, the owner or operator shall indicate which data are CEMS data during startup and shutdown:

9.11.o.1. All six-minute average levels of opacity;

9.11.o.2. All one-hour average concentrations of sulfur dioxide emissions ~~indicating which data are CEMS data during startup and shutdown~~;

9.11.o.3. All one-hour average concentrations of nitrogen oxides emissions ~~indicating which data are CEMS data during startup and shutdown~~;

9.11.o.4. All one-hour average concentrations of carbon monoxide emissions, ~~indicating which data are CEMS data during startup and shutdown~~;

9.11.o.5. All one-hour average concentrations of particulate matter emissions ~~, indicating which data are CEMS data during startup and shutdown~~;

9.11.o.6. All one-hour average concentrations of mercury emissions ~~, indicating which data are CEMS data during startup and shutdown~~;

9.11.o.7. All one-hour average concentrations of ~~hydrogen chloride emissions, indicating which data are CEMS data during startup and shutdown~~HCl CEMS outputs;

9.11.o.8. All one-hour average percent oxygen concentrations; and

9.11.o.9. All one-hour average PM CPMS readings or particulate matter CEMS outputs.

9.11.p. Records indicating use of the bypass stack, including dates, times, and durations;

9.11.q. If the owner or operator chooses to stack test less frequently than annually, consistent with paragraphs ~~9.9.y.1, 9.9.z.1 and 9.9.y.2, 9.9.z.2~~ 9.9.z.3, the owner or operator shall keep annual records that document that the emissions in the previous stack test(s) were less than 75% 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~~;~~;

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

9.11.s. Records of all required maintenance performed on the air pollution control and monitoring equipment;

9.11.t. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR § 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;

9.11.u. For operating units that combust non-hazardous secondary materials that the Secretary has determined are not solid waste pursuant to 40 CFR § 241.3(b)(1), records which document how the secondary material meets each of the legitimacy criteria under 40 CFR § 241.3(d)(1); if the owner or operator combusts a fuel that has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR § 241.3(b)(4), records as to how the operations that produced the fuel satisfies the definition of processing in 40 CFR § 241.2 and each of the legitimacy criteria in 40 CFR § 241.3(d)(1); if the fuel received a non-waste determination pursuant to the petition process submitted under 40 CFR § 241.3(c), records that document how the fuel satisfies the requirements of the petition process; for operating units that combust nonhazardous secondary materials as fuel per 40 CFR § 241.4, records documenting that the material is a listed non-waste under 40 CFR § 241.4(a);

9.11.v. 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; ~~and~~

9.11.w. 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~~;~~; and

9.11.x. The owner or operator shall have all records available onsite in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the Secretary.

9.12. Reporting requirements.

9.12.a. ~~In addition to the summary of~~ The owner or operator shall comply with the reporting requirements s~~et out~~provided in Table 45-18I~~;the owner or operator shall:~~.

9.12.b. The owner or operator shall submit a waste management plan no later than the date specified in Table 45-18E for submittal of the final control plan~~;~~.

9.12.c. The owner or operator shall submit the information specified in paragraphs 9.12.c.1 through 9.12.c.3 no later than 60 days following the initial performance test, with all reports signed by the facilities manager:

9.12.c.1. The complete test report for the initial performance test results obtained under

subdivision 9.8.a, as applicable;

9.12.c.2. The values for the site-specific operating limits established in subdivision 9.6.c through paragraph 9.6.k.5 or subdivisions 9.6.l ~~through 9.6.m~~, and

9.12.c.3. Documentation that a bag leak detection system has been installed and is being operated, calibrated, and maintained as required by subdivision 9.10.b, if the owner or operator is using a fabric filter to comply with the emission limitations.

9.12.d. The owner or operator shall submit an annual report no later than 12 months following the submission of the information in subdivision 9.12.c and no more than every 12 months thereafter. If the unit is subject to Title V permitting requirements under 45CSR30, the owner or operator may be required by the permit to submit these reports more frequently.

9.12.e. The owner or operator shall include the items listed in paragraphs 9.12.e.1 through 9.12.e.16 below in the annual report required under subdivision 9.12.d ~~shall include the items listed in paragraphs 9.12.e.1 through 9.12.e.16 below~~:

9.12.e.1. Company name and address;

9.12.e.2. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report;

9.12.e.3. Date of report and beginning and ending dates of the reporting period;

9.12.e.4. The values for the operating limits established pursuant to subdivision 9.6.c through paragraph 9.6.k.5 or subdivisions 9.6.l ~~through 9.6.m~~,

9.12.e.5. A statement that there was no deviation from the emission limitations or operating limits during the reporting period, if the facility has not experienced a deviation from any applicable emission limitation or operating limit;

9.12.e.6. The highest recorded three-hour average and the lowest recorded three-hour average (30-day average for energy recovery units), as applicable, for each operating parameter recorded for the calendar year being reported;

9.12.e.7. Information recorded under paragraph 9.11.b.6 and subdivisions 9.11.c through 9.11.e for the calendar year being reported;

9.12.e.8. If a performance test was conducted during the reporting period, the process unit tested, the pollutant tested and the performance test date. The owner or operator shall not submit the performance test report later than the date of submittal of the annual report and shall follow the procedure specified in subparagraph 9.12.j.2.A;

9.12.e.9. A statement that the facility met the requirements of paragraph 9.9.z.1 or 9.9.z.2, and, therefore, was not required to conduct a performance test during the reporting period, if the facility met the requirements of paragraph 9.9.z.1 or 9.9.z.2, and the owner or operator did not conduct a performance test during the reporting period;

9.12.e.10. Documentation of periods when all qualified CISWI unit operators were unavailable for more than eight hours, but less than two weeks;

9.12.e.11. A record including the number, duration, and brief description for each type of malfunction that occurred during the reporting period and that caused or may have caused an exceedance of any applicable emission limitation, if the facility experienced a malfunction during the reporting period,

as well as a description of actions taken during a malfunction of an affected source to minimize emissions in accordance with 40 CFR § 60.11(d), including actions taken to correct a malfunction;

9.12.e.12. For each deviation from an emission or operating limitation that occurs for a CISWI unit for which the owner or operator is not using a CMS to comply with the emission or operating limitations in section 9, the annual report shall contain the following information:

9.12.e.12.A. The total operating time of the CISWI unit at which the deviation occurred during the reporting period; and

9.12.e.12.B. Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

9.12.e.13. If there were periods during which the continuous monitoring system, including the CEMS, was out of control as specified in paragraph 9.12.e.15, the annual report shall contain the following information for each deviation from an emission or operating limitation occurring for a CISWI unit for which the owner or operator is using a continuous monitoring system to comply with the emission and operating limitations in section 9:

9.12.e.13.A. The date and time that each malfunction started and stopped;

9.12.e.13.B. The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks;

9.12.e.13.C. 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;

9.12.e.13.D. The date and time that each deviation started and stopped and whether each deviation occurred during a period of malfunction or during another period;

9.12.e.13.E. 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;

9.12.e.13.F. The total duration of the deviations during the reporting period categorized according to each of the following attributed causes: control equipment problems, process problems, other known causes, and other unknown causes;

9.12.e.13.G. A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total operating time of the CISWI unit at which the continuous monitoring system downtime occurred during that reporting period;

9.12.e.13.H. An identification of each parameter and pollutant that was monitored at the CISWI unit;

9.12.e.13.I. A brief description of the CISWI unit;

9.12.e.13.J. A brief description of the continuous monitoring system;

9.12.e.13.K. The date of the latest continuous monitoring system certification or audit; and

9.12.e.13.L. A description of any changes in continuous monitoring system, processes or controls since the last reporting period.

9.12.e.14. If there were periods during which the continuous monitoring system, including the

CEMS, was not out of control as specified in paragraph 9.12.e.15, a statement that there were not periods during which the continuous monitoring system was out of control during the reporting period;

9.12.e.15. A continuous monitoring system is out of control if any of the following occur:

9.12.e.15.A. 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;

9.12.e.15.B. 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; or

9.12.e.15.C. The continuous opacity monitoring system calibration drift exceeds two times the limit in the applicable performance specification in the relevant standard~~.~~; and

9.12.e.16. 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~~;~~.

9.12.f. Deviation from the operating limits or emission limitations.

9.12.f.1. The owner or operator shall submit a deviation report if any recorded three-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 section 9, if the bag leak detection system alarm sounds for more than five percent of the operating time for the six-month reporting period ~~or~~, if a performance test was conducted that deviated from any emission limitation, if a 30-day average measured using a CEMS deviated from any emission limitation.

9.12.f.2. The owner or operator shall submit the deviation report 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 collected during the second half of the calendar year (July 1 to December 31).

9.12.g. In each report required under subdivision 9.12.f, for any pollutant or parameter that deviated from the emission limitations or operating limits specified in section 9, the owner or operator shall include the ~~four~~ items described in paragraphs 9.12.g.1 through 9.12.g.4 below:

9.12.g.1. The calendar dates and times the unit deviated from the emission limitations or operating limit requirements;

9.12.g.2. The averaged and recorded data for those dates;

9.12.g.3. Durations and causes of the following:

9.12.g.3.A. Each deviation from emission limitations or operating limits and corrective actions; and

9.12.g.3.B. Bypass events and corrective actions~~.~~;

9.12.g.4. A copy of the operating limit monitoring data during each deviation and any test report that documents the emission levels, the process unit tested, the pollutant tested and the date that the performance test was conducted. The owner or operator shall not submit the performance test report later than the ~~date of~~ submittal date of the deviation report according to the subparagraph 9.12.j.2.A.

9.12.h. Deviation from the requirement to have a qualified operator accessible. -- If no qualified operator is accessible for two weeks or more, the owner or operator shall take the ~~two~~ actions in paragraphs 9.12.h.1 and 9.12.h.2 below:

9.12.h.1. Submit a notification of the deviation within ten days that includes the three items in subparagraphs 9.12.h.1.A through 9.12.h.1.C below:

9.12.h.1.A. A statement of what caused the deviation;

9.12.h.1.B. A description of what the owner or operator is doing to ensure that a qualified operator is accessible; and

9.12.h.1.C. The date when the owner or operator anticipates that a qualified operator will be available;

9.12.h.2. Submit a status report to the Administrator and Secretary every four weeks that includes the three items in subparagraphs 9.12.h.2.A through 9.12.h.2.C below:

9.12.h.2.A. A description of what the owner or operator is doing to ensure that a qualified operator is accessible;

9.12.h.2.B. The date when the owner or operator anticipates that a qualified operator will be accessible; and

9.12.h.2.C. A request for approval from the Administrator to continue operation of the CISWI unit.

9.12.h.3. If the Administrator shuts down the unit under the provisions of paragraph 9.12.h.2 due to the owner's or operator's failure to provide an accessible qualified operator, the owner or operator shall notify the Administrator and Secretary that the unit is resuming operation once a qualified operator is accessible.

9.12.i. Other notifications and reports.

9.12.i.1. The owner or operator shall submit notifications as provided by 40 CFR § 60.7 and 45CSR16.

9.12.i.2. If the owner or operator ceases combusting solid waste but continues to operate, the owner or operator shall provide 30 days prior notice of the effective date of the waste-to-fuel switch, consistent with subdivision 9.9.a. The notification shall identify:

9.12.i.2.A. The name of the owner or operator of the CISWI unit, the location of the source, the emissions unit(s) that will cease burning solid waste, and the date of the notice;

9.12.i.2.B. The currently applicable subcategory under section 9 of this rule, and any 40CFR ~~Part~~ 63 subpart and subcategory that will be applicable after the unit ceases combusting solid waste;

9.12.i.2.C. The fuel(s), non-waste material(s), and solid waste(s) the CISWI unit is currently combusting and has combusted over the past six months, and the fuel(s) or non-waste materials the unit will commence combusting;

9.12.i.2.D. The date on which the unit became subject to the currently applicable emission limits; and

9.12.i.2.E. The date upon which the unit will cease combusting solid waste and the date (if different) that the owner or operator intends for any new requirements to become applicable (i.e., the effective date of the waste to fuel switch), consistent with subparagraphs 9.12.i.2.B and 9.12.i.2.C.

9.12.j. Form of reports.

9.12.j.1. The owner or operator shall 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 Compliance and Emissions Data Reporting Interface (CEDRI) for one year, whichever is later, the owner or operator shall submit ~~the~~ 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) on EPA's website. ~~Once the XML schema is available, the owner or operator shall 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. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the owner or operator shall submit the report to the Administrator at the appropriate address listed in 40 CFR § 60.4. Once the form has been available in CEDRI for 90 calendar days, the owner or operator shall submit all reports via CEDRI.~~ The owner or operator shall use the appropriate electronic report in CEDRI or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the CEDRI website. The owner or operator shall submit the reports by the deadlines specified in this subpart, regardless of the method by which the owner or operator submits the report.

9.12.j.2. Submit results of performance tests and CEMS performance evaluation tests as follows:

9.12.j.2.A. Within 60 days after the date of completing each performance test as required by section 9, the owner or operator shall submit the results of the performance tests following the procedure specified in either part 9.12.j.2.A.1 or 9.12.j.2.A.2 below:

9.12.j.2.A.1. For data collected using test methods supported by the EPA's electronic reporting tool (ERT) at the time of the test, as listed on the EPA's ERT website, the owner or operator shall submit the results of the performance test to the EPA via the CEDRI, which can be accessed through the EPA's CDX website. The owner or operator shall submit performance test data 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 the owner or operator claims that some of the performance test information being submitted is confidential business information (CBI), the owner or operator shall 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 owner or operator shall clearly mark the electronic media as CBI and mail it to the address listed on EPA's website. The owner or operator shall submit the same ERT or alternate file with the CBI omitted to the EPA via the EPA's CDX as described earlier in this paragraph; and

9.12.j.2.A.2. 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, the owner or operator shall submit the results of the performance test to the Administrator at the appropriate address listed in 40 CFR § 60.4.

9.12.j.2.B. Within 60 days after the date of completing each CEMS performance evaluation test as defined and required by section 9, the owner or operator shall submit the performance evaluation results following the procedures specified in either part 9.12.j.2.B.1 or 9.12.j.2.B.2 below:

9.12.j.2.B.1. 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, the owner or operator shall submit the performance evaluation results to the EPA via the CEDRI. The owner or operator shall submit the performance evaluation data 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 the owner or operator claims that some of the performance evaluation information being submitted is CBI, the owner or operator shall 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 owner or operator shall clearly mark the electronic storage media as CBI and mail it to the appropriate address listed on EPA's ERT website. The owner or operator shall submit the same ERT or alternate file with the CBI omitted to the EPA via the EPA's CDX as described earlier in this paragraph; and

9.12.j.2.B.2. 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, the owner or operator shall submit the performance evaluation results to the Administrator at the appropriate address listed in 40 CFR § 60.4.

9.12.j.3. If the owner or operator is 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 five business days prior to the date that the submission is due, the owner or operator will be or is precluded from accessing CEDRI or CDX and submitting a required report within the time prescribed, the owner or operator may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. The owner or operator shall submit notification to the Administrator in writing as soon as possible following the date the owner or operator first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. The owner or operator shall 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 the owner or operator propose to report, or if the owner or operator have already met the reporting requirement at the time of the notification, the date the owner or operator reported. In any circumstance, the report shall 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.

9.12.j.4. If the owner or operator is 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 five 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 paragraph, 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 the owner or operator 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 the owner or operator intends to assert a claim of force majeure, the owner or operator shall submit notification to the Administrator in writing as soon as possible following the date the owner or operator first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. The owner or operator shall 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 the owner or operator propose to report, or if the owner or operator have already met the reporting requirement at the time of the notification, the date the owner or operator 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.

9.12.k. Changes to reporting dates. -- If the Secretary agrees, the owner or operator may change the semiannual or annual reporting dates by following the procedures set out in 40 CFR § 60.19(c).

9.13. Requirements for air curtain incinerators (ACIs).

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

9.13.b. Air curtain incinerators that burn only the materials listed in paragraphs 9.13.b.1 through 9.13.b.3 below are only required to meet the requirements under subsections 9.3 and 13.3.

9.13.b.1. 100% wood waste;

9.13.b.2. 100% clean lumber; or

9.13.b.3. 100% mixture of only wood waste, clean lumber, and/or yard waste.

9.13.c. Increments of progress. -- If the owner or operator plans to achieve compliance more than one year following the effective date of West Virginia's ~~CAA § 111(d)/129~~ state plan approval by the federal EPA, the owner or operator shall meet the ~~two~~ increments of progress specified below:

9.13.c.1. Submit a final control plan; and

9.13.c.2. Achieve final compliance.

9.13.d. Table 45-18E specifies compliance dates for each of the increments of progress.

9.13.e. Notifications of achievement. -- The owner~~'s~~ or operator~~'s~~ shall include the information in paragraphs 9.3.e.1 through 9.3.e.3 in the notification of achievement of increments of progress ~~shall include the three items described below~~:

9.13.e.1. Notification that the owner or operator has achieved the increment of progress;

9.13.e.2. Any items required to be submitted with each increment of progress (refer to subdivision 9.13.h); and

9.13.e.3. Signature of the owner or operator of the incinerator.

9.13.f. Notifications for achieving increments of progress shall be postmarked no later than ten business days after the compliance date for the increment.

9.13.g. Failure to meet an increment of progress. -- If the owner or operator fails to meet an increment of progress, the owner or operator shall submit a notification to the Secretary postmarked within ten business days after the date for that increment of progress in Table 45-18E. The owner or operator shall inform the Secretary that ~~the unit did not meet~~ the increment of progress was not met, and the owner or operator shall continue to submit reports each subsequent calendar month until ~~the unit meets~~ the increment of progress is met.

9.13.h. For the control plan increment of progress, the owner or operator shall satisfy the two requirements specified below:

9.13.h.1. Submit the final control plan, including a description of any devices for air pollution control and any process changes that the owner or operator will use to comply with the emission limitations and other requirements of section 9; and

9.13.h.2. Maintain an onsite copy of the final control plan.

9.13.i. For the final compliance increment of progress, the owner or operator shall complete all process changes and retrofit construction of control devices as specified in the final control plan so that, if the affected incinerator is brought online, all necessary process changes and air pollution control devices would operate as designed.

9.13.j. Closure and restart.

9.13.j.1. If the owner or operator closes the incinerator but will reopen it prior to the final compliance date, the ~~unit~~ owner or operator shall meet the increments of progress specified in subdivision 9.13.c.

9.13.j.2. If the owner or operator closes the incinerator but will restart it after the final compliance date, the owner or operator shall complete emission control retrofits and meet the emission limitations on the date the incinerator restarts operation.

9.13.k. Permanent closure. -- If the owner or operator plans to close the incinerator rather than comply with section 9, the owner or operator shall submit a closure notification, including the date of closure, to the Secretary by the date the final control plan is due.

9.13.l. Emission limitations for air curtain incinerators. -- After the date the initial stack test is required or completed (whichever is earlier), the owner or operator shall meet the ~~below~~ limitations in paragraphs 9.13.l.1 and 9.13.l.2:

9.13.l.1. Maintain opacity to less than or equal to ten percent opacity (as determined by the average of three one-hour blocks consisting of ten six-minute average opacity values), except as described in paragraph 9.13.l.2.; ~~or~~ and

9.13.l.2. Maintain opacity to less than or equal to 35~~%~~percent opacity (as determined by the average of three one-hour blocks consisting of ten six-minute average opacity values) during the startup period that is within the first 30 minutes of operation.

9.13.m. Opacity monitoring for air curtain incinerators. -- The owner or operator shall:

9.13.m.1. Use Method 9 of appendix A of 40CFR~~ part~~ 60 to determine compliance with the opacity limitation;

9.13.m.2. Conduct an initial test for opacity as specified in 40 CFR § 60.8 no later than 180 days after the final compliance date; and

9.13.m.3. Conduct annual tests no more than 12 calendar months following the date of the initial opacity test.

9.13.n. Recordkeeping and reporting requirements for air curtain incinerators. -- The owner or operator shall:

9.13.n.1. Keep records of results of all initial and annual opacity tests onsite in either paper copy or electronic format, unless the Secretary approves another format, for at least five years;

9.13.n.2. Make all records available to the Secretary;

9.13.n.3. Submit an initial report no later than 60 days following the initial opacity test, which includes the information specified in subparagraphs below:

9.13.n.3.A. The types of materials the owner or operator plans to combust in the air curtain incinerator; and

9.13.n.3.B. The results (as determined by the average of three one-hour blocks consisting of ten six-minute average opacity values) of the initial opacity tests~~.~~;

9.13.n.4. Submit annual opacity test results to the Secretary within 12 months following the previous report; and

9.13.n.5. Submit initial and annual opacity test reports to the Secretary as electronic or paper copy on or before the applicable submittal date and keep a copy onsite for a period of five years.

9.14. Authority. -- The following authorities are retained by the Administrator and are not transferred or delegated to the Secretary:

9.14.a. Approval of alternatives to the emission limitations in Table 45-18F and Tables 45-18J through 45-18M and operating limits established under subdivisions 9.6.c through 9.6.l;

9.14.b. Approval of major alternatives to test methods;

9.14.c. Approval of major alternatives to monitoring;

9.14.d. Approval of major alternatives to recordkeeping and reporting;

9.14.e. ~~[Reserved].~~

~~9.14.f.~~ The requirements in subdivision 9.6.l of this rule;

~~9.14.g~~ 9.14.f. The requirements in subparagraph 9.5.k.2.B of this rule;

~~9.14.h~~ 9.14.g. Approval of alternative opacity emission limits in subdivisions 9.6.a and 9.6.b of this rule and under 40 CFR §§ 60.11(e)(6) through (e)(8);

~~9.14.i~~ 9.14.h. Performance test and data reduction waivers under ~~subdivision 9.7.j of this rule and~~ 40 CFR §§ 60.8(b)(4) and (5); and

~~9.14.j. Determination of whether a qualifying small power production facility or cogeneration facility under paragraphs 9.2.d.5 and 9.2.d.6 of this rule is combusting homogenous waste as that term is defined in 40 CFR § 60.2265.~~

9.14.i. Approval of an alternative to any electronic reporting to the EPA required by section 9.

§45-18-10. Requirements for new other solid waste incineration units.

10.1. Requirements for new OSWI units. -- The owner or operator of another solid waste incineration unit (OSWI unit) under subsection 10.2 shall comply with all applicable standards of performance, requirements, and provisions of 40 CFR part 60, subpart EEEE, including any reference methods, performance specifications, and other test methods associated with subpart EEEE. No person shall construct or operate, or cause to be constructed or operated, a new OSWI unit that results in a violation of 40 CFR part 60, subpart EEEE or this rule.

10.2. Applicability. -- The owner or operator of an OSWI unit that meets the following criteria is subject to the requirements for new OSWI units set forth in section 10. A new OSWI unit is an OSWI unit that either:

10.2.a. Commenced construction after December 9, 2004; or

10.2.b. Commenced modification or reconstruction after June 16, 2006.

§45-18-11. Requirements for new sewage sludge incinerators.

11.1. Requirements for new SSI units. -- The owner or operator of a SSI unit under subsection 11.2 shall comply with all applicable standards of performance, requirements, and provisions of 40 CFR part 60, subpart LLLL, including any reference methods, performance specifications, and other test methods associated with subpart LLLL. No person shall construct, reconstruct, modify or operate, or cause to be constructed, reconstructed, modified or operated, a new SSI unit that results in a violation of 40 CFR part 60, subpart LLLL or this rule.

11.2. Applicability. -- The owner or operator of a SSI unit that meets the following criteria is subject to the requirements for new SSI units set forth in section 11. A new SSI unit is a SSI unit that either:

11.2.a. Commenced construction after October 14, 2010; or

11.2.b. Commenced modification after September 21, 2011.

§45-18-12. Secretary.

12.1. Any and all references in 40 CFR part 60, subparts Ce, Eb, Ec, AAAA, CCCC, EEEE, and LLLL to "the Administrator" are amended to be the "Secretary", except in the following references, which shall remain "Administrator":

12.1.a. Where the federal regulations specifically provide that the Administrator shall retain authority and not transfer such authority to the Secretary;

12.1.b. Where provisions occur which refer to:

12.1.b.1. Alternate means of emission limitations;

12.1.b.2. Alternate control technologies;

12.1.b.3. Innovative technology waivers;

12.1.b.4. Alternate test methods;

12.1.b.5. Alternate monitoring methods;

12.1.b.6. Waivers/adjustments to recordkeeping and reporting;

12.1.b.7. Applicability determinations;

12.1.b.8. The requirements of 40 CFR § 60.56c(i) establishing operating parameters when using controls other than those listed in 40 CFR § 60.56c(d);

12.1.b.9. Alternative methods of demonstrating compliance under 40 CFR § 60.8; and

12.1.b.10. Performance test and data reduction waivers under 40 CFR § 60.8(b).

~~12.1.b.11. Alternate operating limits established under section 9;~~

~~12.1.b.12. The qualified operators "temporarily not accessible requirements under section 9;~~

~~12.1.b.13. Approval of alternative opacity emission limits under section 9 of this rule and 40 CFR § 60.11(e)(6), and~~

~~12.1.b.14. Determination of whether a qualifying small power production facility or cogeneration facility under section 9 is combusting homogeneous waste.~~

12.1.c. Where the context of the regulation clearly requires otherwise.

§45-18-13. Permits.

13.1. The owner or operator of existing HMIWI units shall operate pursuant to a Title V permit in accordance with the requirements of 45CSR30.

13.2. The owner or operator of a new HMIWI unit shall submit to the Secretary a complete application for a Title V permit in accordance with the requirements of 45CSR30 within twelve (12) months after commencing operation.

13.3. The owner or operator of an existing CISWI unit or air curtain incinerator subject to section 9 shall operate pursuant to a permit issued under § 129(e) of the CAA and 45CSR30.

13.4. The owner or operator of a new CISWI unit shall operate pursuant to a CAA Title V permit in accordance with the requirements of 45CSR30.

13.5. The owner or operator of a new OSWI unit shall submit a complete application for a Title V permit in accordance with the requirements of 45CSR30 within twelve (12) months after commencing operation: Provided, that the Secretary may require a new OSWI unit to apply for and obtain a Title V permit prior to this date, as specified in 40 CFR § 60.2967(b).

13.6. The owner or operator of a new SSI unit shall apply for and obtain a Title V permit in accordance with the requirements of 45CSR30, unless the unit meets the relevant requirements for and exemption set forth in 40 CFR § 60.4780.

13.7. Nothing contained in this rule shall be construed or inferred to mean that permit requirements in accordance with applicable rules shall be in any way limited or inapplicable, including but not limited to the permitting requirements under 45CSR13, 45CSR14, 45CSR19, 45CSR25 and 45CSR30.

§45-18-14. Exemptions.

14.1. The exemption provisions under 40 CFR part 60, subparts Eb, Ec, AAAA, CCCC, EEEE, and LLLL are incorporated in this rule.

14.2. Temporary air curtain incinerators approved by the Secretary under the requirements of 45CSR6 that are operated for the disposal of only on-site land clearing debris (as defined in 45CSR6) are exempt from the requirements of this rule.

14.3. Temporary incinerators approved by the Secretary under the requirements of 45CSR6 that are operated for the disposal of animal or poultry remains and related pathological waste are exempt from the requirements of this rule.

14.4. Pathological waste incineration units. -- Any institutional waste incineration unit, very small municipal waste combustion unit, incinerator or combustor is exempt from the requirements of this rule: provided, that:

14.4.a. The unit burns 90% 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 or chemotherapeutic waste;

14.4.b. The owner or operator of the unit keeps records on a calendar quarter basis of the periods of time when only pathological waste, low-level radioactive waste or chemotherapeutic waste is incinerated;

14.4.c. The unit is subject to the requirements of 45CSR6 or 45CSR25; and

14.4.d. The owner or operator of the unit notifies the Administrator and the Secretary that the unit meets these criteria.

14.5. Any incinerator or combustor subject to 40 CFR part 60, subparts Cb, Cc, E, Ea, O, WWW, BBBB, FFFF or MMMM is exempt from the requirements of this rule.

14.6. Any incinerator or combustor subject to 42 U.S.C. § 6925, 45CSR25, and 33CSR20 is exempt from the requirements of this rule.

14.7. Any combustor subject to 40 CFR part 63, subpart EEE is exempt from the requirements of this rule.

§45-18-15. Effect of the rule.

15.1. Nothing in this rule shall be construed to allow or permit the installation, establishment or construction of a new municipal or commercial solid waste facility utilizing incineration technology for the purpose of solid waste incineration in violation of W.Va. Code § 22-15-19.

§45-18-16. Inconsistency between rules.

16.1. In the event of any inconsistency between this rule and any other rule of the Division of Air Quality, the inconsistency shall be resolved by the determination of the Secretary, and the determination shall be based upon the application of the more stringent provision, term, condition, method or rule.

TABLE 45-18A
Emissions limits for small, medium, and large HMIWI at designated facilities as set forth in 45CSR§ 18-7.2.a.1.

Pollutant	**Units** (7 percent oxygen, dry basis)	**Emissions Limits** HMIWI Size			**Averaging Time**[1]	**Compliance Method**[2]
		Small	Medium	Large		
Particulate matter	Milligrams per dry standard cubic meter (mg/dscm) (grains per dry standard cubic foot (gr/dscf))	115 (0.05)	69 (0.03)	34 (0.015)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 5 of appendix A-3 of 40CFR ~~part~~ 60, or EPA Reference Method 26A or 29 of appendix A-8 of 40CFR ~~part~~ 60.
Carbon monoxide	Parts per million by volume (ppmv)	40	40	40	3-run average (1-hour minimum sample time per run)	EPA Reference Method 10 or 10B of appendix A-4 of 40CFR ~~part~~ 60.
Dioxins/furans	Nanograms per dry standard cubic meter total dioxins/furans (ng/dscm) (grains per billion dry standard cubic feet (gr/109dscf)) or ng/dscm TEQ (gr/109dscf)	125 (55) or 2.3 (1.0)	125 (55) or 2.3 (1.0)	125 (55) or 2.3 (1.0)	3-run average (4-hour minimum sample time per run)	EPA Reference Method 23 of appendix A-7 of 40CFR ~~part~~ 60.
Hydrogen chloride	ppmv or percent reduction	100 or 93%	100 or 93%	100 or 93%	3-run average (1-hour minimum sample time per run)	EPA Reference Method 26 or 26A of appendix A-8 of 40CFR ~~part~~ 60.
Sulfur dioxide	ppmv	55	55	55	3-run average (1-hour minimum sample time per run)	EPA Reference Method 6 or 6C of appendix A-4 of 40CFR ~~part~~ 60.
Nitrogen oxides	ppmv	250	250	250	3-run average (1-hour minimum sample time per run)	EPA Reference Method 7 or 7E of appendix A-4 of 40CFR ~~part~~ 60.
Lead	mg/dscm (grains per thousand dry standard cubic feet ($gr/10^3$dscf)) or percent reduction	1.2 (0.52) or 70%	1.2 (0.52) or 70%	1.2 (0.52) or 70%	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of 40CFR ~~part~~ 60.
Cadmium	mg/dscm ($gr/10^3$dscf) or percent reduction	0.16 (0.07) or 65%	0.16 (0.07) or 65%	0.16 (0.07) or 65%	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of 40CFR ~~part~~ 60.
Mercury	mg/dscm ($gr/10^3$dscf) or percent reduction	0.55 (0.24) or 85%	0.55 (0.24) or 85%	0.55 (0.24) or 85%	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of 40CFR ~~part~~ 60.

[1]Except as allowed under 40 CFR § 60.56c(c) for HMIWI equipped with CEMS.
[2]Does not include CEMS and approved alternative non-EPA test methods allowed under 40 CFR § 60.56c(b).

TABLE 45-18B
Emissions limits for small, medium, and large HMIWI at designated facilities as set forth in 45CSR§§ 18-7.2.a.1 and 7.2.a.2.

Pollutant	**Units** (7 percent oxygen, dry basis)	**Emissions Limits** HMIWI Size			**Averaging Time**[1]	**Compliance Method**[2]
		Small	Medium	Large		
Particulate matter	Milligrams per dry standard cubic meter (mg/dscm) (grains per dry standard cubic foot (gr/dscf))	66 (0.029)	46 (0.020)	25 (0.011)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 5 of appendix A-3 of 40CFR ~~part~~ 60, or EPA Reference Method 26A or 29 of appendix A-8 of 40CFR ~~part~~ 60.
Carbon monoxide	Parts per million by volume (ppmv)	20	5.5	11	3-run average (1-hour minimum sample time per run)	EPA Reference Method 10 or 10B of appendix A-4 of 40CFR ~~part~~ 60.
Dioxins/furans	Nanograms per dry standard cubic meter total dioxins/furans (ng/dscm) (grains per billion dry standard cubic feet (gr/109dscf)) or ng/dscm TEQ (gr/109dscf)	16 (7.0) or 0.013 (0.0057)	0.85 (0.37) or 0.020 (0.0087)	9.3 (4.1) or 0.054 (0.024)	3-run average (4-hour minimum sample time per run)	EPA Reference Method 23 of appendix A-7 of 40CFR ~~part~~ 60.
Hydrogen chloride	ppmv	44	7.7	6.6	3-run average (1-hour minimum sample time per run)	EPA Reference Method 26 or 26A of appendix A-8 of 40CFR ~~part~~ 60.
Sulfur dioxide	ppmv	4.2	4.2	9.0	3-run average (1-hour minimum sample time per run)	EPA Reference Method 6 or 6C of appendix A-4 of 40CFR ~~part~~ 60.
Nitrogen oxides	ppmv	190	190	140	3-run average (1-hour minimum sample time per run)	EPA Reference Method 7 or 7E of appendix A-4 of 40CFR ~~part~~ 60.
Lead	mg/dscm (grains per thousand dry standard cubic feet ($gr/10^3dscf$))	0.31 (0.14)	0.018 (0.0079)	0.036 (0.016)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of 40CFR ~~part~~ 60.
Cadmium	mg/dscm ($gr/10^3dscf$)	0.017 (0.0074)	0.013 (0.0057)	0.0092 (0.0040)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of 40CFR ~~part~~ 60.
Mercury	mg/dscm ($gr/10^3dscf$)	0.014 (0.0061)	0.025 (0.011)	0.018 (0.0079)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of 40CFR ~~part~~ 60.

[1]Except as allowed under 40 CFR § 60.56c(c) for HMIWI equipped with CEMS.
[2]Does not include CEMS and approved alternative non-EPA test methods allowed under 40 CFR § 60.56c(b).

TABLE 45-18C
Emissions limits for small HMIWI which meet the criteria under 45CSR§ 18-7.3.b.1.

Pollutant	**Units** (7 percent oxygen, dry basis)	**HMIWI Emissions Limits**	**Averaging Time[1]**	**Compliance Method[2]**
Particulate matter	mg/dscm (gr/dscf)	197 (0.086)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 5 of appendix A-3 of 40CFR ~~part~~ 60, or EPA Reference Method 26A or 29 of appendix A-8 of 40CFR ~~part~~ 60.
Carbon monoxide	ppmv	40	3-run average (1-hour minimum sample time per run)	EPA Reference Method 10 or 10B of appendix A-4 of 40CFR ~~part~~ 60.
Dioxins/furans	ng/dscm total dioxins/furans (gr/109dscf) or ng/dscm TEQ (gr/109dscf)	800 (350) or 15 (6.6)	3-run average (4-hour minimum sample time per run)	EPA Reference Method 23 of appendix A-7 of 40CFR ~~part~~ 60.
Hydrogen chloride	ppmv	3,100	3-run average (1-hour minimum sample time per run)	EPA Reference Method 26 or 26A of appendix A-8 of 40CFR ~~part~~ 60.
Sulfur dioxide	ppmv	55	3-run average (1-hour minimum sample time per run)	EPA Reference Method 6 or 6C of appendix A-4 of 40CFR ~~part~~ 60.
Nitrogen oxides	ppmv	250	3-run average (1-hour minimum sample time per run)	EPA Reference Method 7 or 7E of appendix A-4 of 40CFR ~~part~~ 60.
Lead	mg/dscm (gr/10^3dscf)	10 (4.4)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of 40CFR ~~part~~ 60.
Cadmium	mg/dscm (gr/10^3dscf)	4 (1.7)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of 40CFR ~~part~~ 60.
Mercury	mg/dscm (gr/10^3dscf)	7.5 (3.3)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of 40CFR ~~part~~ 60.

[1]Except as allowed under 40 CFR § 60.56c(c) for HMIWI equipped with CEMS.
[2]Does not include CEMS and approved alternative non-EPA test methods allowed under 40 CFR § 60.56c(b).

TABLE 45-18D
Emissions limits for small HMIWI which meet the criteria under 45CSR§ 18-7.3.b.2.

Pollutant	**Units** (7 percent oxygen, dry basis)	**HMIWI Emissions Limits**	**Averaging Time[1]**	**Compliance Method[2]**
Particulate matter	mg/dscm (gr/dscf)	87 (0.038)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 5 of appendix A-3 of 40CFR ~~part~~ 60, or EPA Reference Method 26A or 29 of appendix A-8 of 40CFR ~~part~~ 60.
Carbon monoxide	ppmv	20	3-run average (1-hour minimum sample time per run)	EPA Reference Method 10 or 10B of appendix A-4 of 40CFR ~~part~~ 60.
Dioxins/furans	ng/dscm total dioxins/furans (gr/109dscf) or ng/dscm TEQ (gr/109dscf)	240 (100) or 5.1 (2.2)	3-run average (4-hour minimum sample time per run)	EPA Reference Method 23 of appendix A-7 of 40CFR ~~part~~ 60.
Hydrogen chloride	ppmv	810	3-run average (1-hour minimum sample time per run)	EPA Reference Method 26 or 26A of appendix A-8 of 40CFR ~~part~~ 60.
Sulfur dioxide	ppmv	55	3-run average (1-hour minimum sample time per run)	EPA Reference Method 6 or 6C of appendix A-4 of 40CFR ~~part~~ 60.
Nitrogen oxides	ppmv	130	3-run average (1-hour minimum sample time per run)	EPA Reference Method 7 or 7E of appendix A-4 of 40CFR ~~part~~ 60.
Lead	mg/dscm (gr/10^3dscf)	0.50 (0.22)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of 40CFR ~~part~~ 60.
Cadmium	mg/dscm (gr/10^3dscf)	0.11 (0.048)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of 40CFR ~~part~~ 60.
Mercury	mg/dscm (gr/10^3dscf)	0.0051 (0.0022)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of 40CFR ~~part~~ 60.

[1]Except as allowed under 40 CFR § 60.56c(c) for HMIWI equipped with CEMS.
[2]Does not include CEMS and approved alternative non-EPA test methods allowed under 40 CFR § 60.56c(b).

TABLE 45-18E
Increments of progress and compliance schedules for existing CISWI units

Comply with these increments of progress	By no later than[a]
Increment 1. -- The owner or operator of an existing CISWI unit shall submit a final control plan to the Secretary as expeditiously as practicable after approval of the West Virginia § 111(d)/129 plan.	February 7, 2016
Increment 2. -- The owner or operator of an existing CISWI unit shall achieve final compliance as expeditiously as practicable after approval of the West Virginia § 111(d)/129 plan.	February 7, 2018; or three years after the effective date of West Virginia § 111(d)/129 plan approval.[b]

[a] Site-specific schedules can be used at the discretion of the Secretary.
[b] The date can be no later than 3 years after the effective date of state plan approval or December 1, 2005 for CISWI units that commenced construction on or before November 30, 1999. The date can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018 for CISWI units that commenced construction on or before June 4, 2010.

TABLE 45-18F
Emission limits for existing commercial and industrial solid waste ~~incineration units~~ incinerators that apply before February 7, 2018[b]

Air pollutant	Emission limit [a]	Averaging time	Performance test methods
Cadmium	0.004 milligrams per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Performance test (Method 29 of 40CFR ~~part~~ 60, appendix A)
Carbon monoxide	157 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 10, 10A, or 10B, of 40CFR ~~part~~ 60, appendix A)
Dioxins/furans (toxic equivalency basis)	0.41 nanograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Performance test (Method 23 of 40CFR ~~part~~ 60, appendix A)
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 of 40CFR ~~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 40CFR ~~part~~ 60, appendix A)
Mercury	0.47 milligrams per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Performance test (Method 29 or 30B of 40CFR ~~part~~ 60, appendix A-8) or ASTM D6784–02 (reapproved 2008)[e]
Nitrogen oxides ~~of nitrogen~~	388 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 7 or 7E of 40CFR ~~part~~ 60, appendix A-4)
Opacity	10 percent	Three 1-hour blocks consisting of ten 6-minute average opacity values.	Performance test (Method 9 of 40CFR ~~part~~ 60, appendix A-4)
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 40CFR ~~part~~ 60, appendix A)
Sulfur dioxide	20 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 6 or 6C of 40CFR ~~part~~ 60, appendix A)

[a]All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.
[b]Applies only to incinerators subject to the CISWI standards through a state plan prior to June 4, 2010. The date specified in the state plan can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018.
~~[e] Incorporated by reference, see 40 CFR § 60.17.~~

TABLE 45-18G
Operating limits for wet scrubbers

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

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

TABLE 45-18H
Toxic equivalency factors

Dioxin/Furan isomer	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 45-18I
Summary of reporting requirements for existing CISWI units[a]

Report	Due date	Contents	Reference
Waste Management Plan	No later than the date specified in Table 45-18E for submittal of the final control plan	Waste management plan.	subdivision 9.12.b
Initial Test Report	No later than 60 days following the initial performance test	Complete test report for the initial performance test. The values for the site-specific operating limits. Installation of bag leak detection systems for fabric filters.	subdivision 9.12.c
Annual Report	No later than 12 months following the submission of the initial test report. Subsequent reports are to be submitted no more than 12 months following the previous report.	Name and address. Statement and signature by responsible official. Date of report. Values for the operating limits. 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. If a performance test was conducted during the reporting period, the results of the test. If a performance test was not conducted during the reporting period, a statement that the requirements of paragraph ~~9.9.z.1~~ 9.9.z.3 were met. Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours but less than 2 weeks. If you are conducting performance tests once every 3 years consistent with paragraph ~~9.9.z.1~~ 9.9.z.3, the date of the last 2 performance tests, a comparison of the emission level you achieved in the last 2 performance tests to the 75 percent emission limit threshold required in paragraph ~~9.9.z.1~~ 9.9.z.3 and a statement as to whether there have been any operational changes since the last performance test that could increase emissions. Any malfunction, deviation, or continuous monitoring system out of control periods information as specified in 9.12.e.11 through 9.12.e.15. Fuel input information for energy recovery unit subcategory verification as specified in 9.12.e.16.	subdivisions 9.12.d and 9.12.e
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.	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 any test reports. Dates, times and causes for monitor downtime incidents.	subdivisions 9.12.f and 9.12.g.
Qualified Operator	Within 10 days of deviation	Statement of cause of deviation.	paragraph 9.12.h.1

Deviation Notification		Description of efforts to have an accessible qualified operator. The date a qualified operator will be accessible.	
Qualified Operator Deviation Status Report	Every 4 weeks following deviation	Description of efforts to have an accessible qualified operator. The date a qualified operator will be accessible. Request for approval to continue operation.	paragraph 9.12.h.2
Qualified Operator Deviation Notification of Resumed Operation	~~Notification of resumed operation~~ pPrior to resuming operation	Notification that you are resuming operation.	paragraph 9.12.h.3

[a] This table is only a summary, see the referenced subdivisions and paragraphs for the complete requirements.

TABLE 45-18J
Emission limits for existing commercial and industrial solid waste ~~incineration units~~ incinerators that apply on and after February 7, 2018[a]

Air pollutant	Emission limit[b]	Averaging time[c]	Performance test methods[c]
Cadmium	0.0026 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of 40CFR ~~part~~ 60, appendix A-8). 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 40CFR ~~part~~ 60, appendix A-4).
Dioxins/furans (total mass basis)	4.6 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 23 at 40CFR ~~part~~ 60, appendix A-7).
Dioxins/furans (toxic equivalency basis)	0.13 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 23 of 40CFR ~~part~~ 60, appendix A-7).
Hydrogen chloride	29 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 of 40CFR ~~part~~ 60, appendix A-8).
Lead	0.015 milligrams per dry standard cubic meter.~~[e]~~	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of 40CFR ~~part~~ 60, appendix A-8). Use ICPMS for the analytical finish.
Mercury	0.0048 milligrams per dry standard cubic meter.	3-run average (For Method 29 and ASTM D6784–02 (Reapproved 2008)~~[d]~~, collect a minimum volume of 2 dry standard cubic meters per run. For Method 30B, collect a minimum sample as specified in Method 30B at 40CFR ~~part~~ 60, appendix A).	Performance test (Method 29 or 30B of 40CFR ~~part~~ 60, appendix A-8) or ASTM D6784–02 (Reapproved 2008)~~[d]~~.
Nitrogen oxides ~~of nitrogen~~	53 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 of 40CFR ~~part~~ 60, appendix A-4).
Particulate matter filterable	34 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 5 or 29 of 40CFR ~~part~~ 60, appendix A-3 or appendix A-8).
Sulfur dioxide	11 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 6 or 6C of 40CFR ~~part~~ 60, appendix A-4).
Fugitive ash	Visible emissions for no more than 5% of the hourly observation period.	Three 1-hour observation periods.	Visible emission test (Method 22 at 40CFR ~~part~~ 60, appendix A-7).

[a] The date specified in the state plan can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018.

[b] All emission limitations are measured at 7 percent oxygen, dry basis at standard conditions. For dioxins/furans, ~~you~~ the owner or operator shall meet either the total mass basis limit or the toxic equivalency basis limit.

[c] ~~If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to subdivision 9.9.z if all of the other provisions of subdivision 9.9.z are met. For all other pollutants that do not contain a footnote "c", your performance tests for this pollutant for at least 2 consecutive years shall show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.~~

~~[d] Incorporated by reference, see 40 CFR § 60.17~~. In lieu of performance testing, the owner or operator 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 the owner or operator complies with the CEMS or integrated sorbent trap monitoring system requirements applicable to the specific pollutant in 9.9.a through 9.9.z and 9.10.a through 9.10.t. As prescribed in 9.9.u, if the owner or operator uses a CEMS or integrated sorbent trap monitoring system to demonstrate compliance with an emissions limit, the averaging time is a 30-day rolling average of 1-hour arithmetic average emission concentrations.

TABLE 45-18K
Emission limits that apply to energy recovery units after February 7, 2018 [a]

Air pollutant	Emission limitation [b]		Averaging time [c]	Performance test methods [c]
	Liquid/Gas	Solids		
Cadmium	0.023 milligrams per dry standard cubic meter.	Biomass - 0.0014 milligrams per dry standard cubic meter.[e] Coal - 0.0017 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of 40CFR ~~part~~ 60, appendix A-8). Use ICPMS for the analytical finish.
Carbon monoxide	35 parts per million by dry volume.	Biomass - 260 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 40CFR ~~part~~ 60, appendix A-4).
Dioxins/furans (total mass basis)	2.9 nanograms per dry standard cubic meter.	Biomasss - 0.52 nanograms per dry standard cubic meter[e]. 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 40CFR ~~part~~ 60, appendix A-7).
Dioxins/furans (toxic equivalency basis)	0.32 nanograms per dry standard cubic meter.	Biomass - 0.12 nanograms per dry standard cubic meter. Coal - 0.075 nanograms per dry standard cubic meter[e].	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 23 of 40CFR ~~part~~ 60, appendix A-7).
Hydrogen chloride	14 parts per million by 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 of 120 liters; for Method 26A, collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 26 or 26A of 40CFR ~~part~~ 60, appendix A-8).
Lead	0.096 milligrams per dry standard cubic meter.	Biomass - 0.014 milligrams per dry standard cubic meter.[e] Coal - 0.057 milligrams per dry standard cubic meter.[e]	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of 40CFR ~~part~~ 60, appendix A-8). Use ICPMS for the analytical finish.

Mercury	0.0024 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 (For Method 29 and ASTM D6784–02 (Reapproved 2008)[d], collect a minimum volume of 2 dry standard cubic meters per run. For Method 30B, collect a minimum sample as specified in Method 30B at 40CFR ~~part~~ 60, appendix A.	Performance test (Method 29 or 30B of 40CFR ~~part~~ 60, appendix A-8) or ASTM D6784–02 (Reapproved 2008)[d].
Nitrogen oxides ~~of nitrogen~~	76 parts per million by 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 of 40CFR ~~part~~ 60, appendix A-4).
Particulate matter filterable	110 milligrams per dry standard cubic meter.	Biomass - 11 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).	Performance test (Method 5 or 29 of 40CFR ~~part~~ 60, appendix A-3 or appendix A-8) if the unit has an annual average heat input rate less than or equal to 250 MMBtu/hr; or PM CPMS (as specified in subdivision 9.9.x) if the unit has an annual average heat input rate greater than 250 MMBtu/hr.
Sulfur dioxide	720 parts per million by dry volume.	Biomass - 7.3 parts per million dry volume. Coal - 850 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 6 or 6C of 40CFR ~~part~~ 60, appendix A-4).
Fugitive ash	Visible emissions for no more than 5% of the hourly observation period.	Visible emissions for no more than 5% of the hourly observation period.	Three 1-hour observation periods.	Visible emission test (Method 22 at 40CFR ~~part~~ 60, appendix A-7).

[a] The date specified in the state plan can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018.

[b] All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions. For dioxins/furans, ~~you~~ the owner or operator shall meet either the total mass basis limit or the toxic equivalency basis limit.

[c] ~~If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to subdivision 9.9.z if all of the other provision of subdivision 9.9.z are met. For all other pollutants that do not contain a superscript "c", your performance tests for this pollutant for at least 2 consecutive years shall show that your emissions are at or 75 percent of this limit in order to qualify for skip testing, with the exception of annual performance tests to certify a CEMS or PM CPMS.~~

[d] ~~Incorporated by reference, see 40 CFR § 60.17.~~ In lieu of performance testing, the owner or operator 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 the owner or operator complies with the CEMS or integrated sorbent trap monitoring system

requirements applicable to the specific pollutant in 9.9.a through 9.9.z and 9.10.a through 9.10.t. As prescribed in 9.9.u, if the owner or operator uses a CEMS or integrated sorbent trap monitoring system to demonstrate compliance with an emissions limit, the averaging time is a 30-day rolling average of 1-hour arithmetic average emission concentrations.

TABLE 45-18L
Emission limits that apply to waste-burning kilns after February 7, 2018[a]

Air pollutant	Emission limit[b]	Averaging time[c]	Performance test methods[c, d]
Cadmium	0.0014 milligrams per dry standard cubic meter.[e]	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of 40CFR ~~part~~ 60, appendix A-8).
Carbon monoxide	110 (long kilns)/790 (preheater-precalciner) parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 10 at 40CFR ~~part~~ 60, appendix A-4).
Dioxins/furans (total mass basis)	1.3 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 23 at 40CFR ~~part~~ 60, appendix A-7).
Dioxins/furans (toxic equivalency basis)	0.075 nanograms per dry standard cubic meter.[e]	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 23 of 40CFR ~~part~~ 60, appendix A-7).
Hydrogen chloride	3.0 parts per million dry volume.[e]	3-run average (collect a minimum volume of 1 dry standard cubic meter) or 30-day rolling average if HCL CEMS is being used.	If a wet or dry scrubber is used, performance test (Method 321 at 40CFR ~~part~~ 63, appendix A) or HCL CEMS if a wet scrubber or dry scrubber is not used, as specified in subdivision 9.9.j.
Lead	0.014 milligrams per dry standard cubic meter.[e]	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of 40CFR ~~part~~ 60, appendix A-8).
Mercury	0.011 milligrams per dry standard cubic meter or 58 pounds/million tons of clinker.	30-day rolling average.	Mercury CEMS or integrated sorbent trap monitoring system (performance specification 12A or 12B, respectively, of appendix B of 40CFR ~~part~~ 60.)
Nitrogen oxides ~~of nitrogen~~	630 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 of 40CFR ~~part~~ 60, appendix A-4).
Particulate matter filterable	13.5 milligrams per dry standard cubic meter.	30-day rolling average.	PM CPMS as specified in subdivision 9.9.x).
Sulfur dioxide	600 parts per million by dry volume.	3-run average (for Method 6, collect a minimum of 20 liters; for Method 6C, 1 hour minimum sample time per run).	Performance test (Method 6 or 6C of 40CFR ~~part~~ 60, appendix A-4).

[a] The date specified in the Sate Plan can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018.
[b] All emission limitations are measured at 7 percent oxygen, dry basis at standard conditions. For dioxins/furans, ~~you~~the owner or operator shall meet either the total mass basis limit or the toxic equivalency basis limit.
[c] ~~If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below~~

~~this limit, you can skip testing according to subdivision 9.9.z if all of the other provision of subdivision 9.9.z are met. For all other pollutants that do not contain a superscript "c", your performance tests for this pollutant for at least 2 consecutive years shall show that your emissions are at or 75 percent of this limit in order to qualify for skip testing, with the exception of annual performance tests to certify a CEMS or PM CPMS.~~ In lieu of performance testing, the owner or operator 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 the owner or operator complies with the CEMS or integrated sorbent trap monitoring system requirements applicable to the specific pollutant in 9.9.a through 9.9.z and 9.10.a through 9.10.t. As prescribed in 9.9.u, if the owner or operator uses a CEMS or integrated sorbent trap monitoring system to demonstrate compliance with an emissions limit, the averaging time is a 30-day rolling average of 1-hour arithmetic average emission concentrations.

[d] Alkali bypass and in-line coal mill stacks are subject to performance testing only, as specified in paragraph 9.y.3. They are not subject to the CEMS, sorbent trap or CPMS requirements that otherwise may apply to the main kiln exhaust.

TABLE 45-18M
Emission limits that apply to small, remote incinerators after February 7, 2018[a]

Air pollutant	Emission limit[b]	Averaging time[c]	Performance test methods[c]
Cadmium	0.95 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 29 of 40CFR ~~part~~ 60, appendix A-8).
Carbon monoxide	64 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 10 at 40CFR ~~part~~ 60, appendix A-4).
Dioxins/furans (total mass basis)	4400 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 23 at 40CFR ~~part~~ 60, appendix A-7).
Dioxins/furans (toxic equivalency basis)	180 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 23 of 40CFR ~~part~~ 60, appendix A-7).
Fugitive ash	Visible emissions for no more than 5% of the hourly observation period.	Three 1-hour observation periods.	Visible emission test (Method 22 at 40CFR ~~part~~ 60, appendix A-7).
Hydrogen chloride	300 parts per million 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 40CFR ~~part~~ 60, appendix A-8).
Lead	2.1 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 29 of 40CFR ~~part~~ 60, appendix A-8). Use ICPMS for the analytical finish.
Mercury	0.0053 milligrams per dry standard cubic meter.	3-run average (For Method 29 and ASTM D6784–02 (Reapproved 2008)[e], collect a minimum volume of 2 dry standard cubic meters per run. For Method 30B, collect a minimum sample as specified in Method 30B at 40CFR ~~part~~ 60, appendix A).	Performance test (Method 29 or 30B at 40CFR ~~part~~ 60, appendix A–8) or ASTM D6784-02 (Reapproved 2008).[e]
Nitrogen oxides ~~of nitrogen~~	190 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 of 40CFR ~~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 meter).	Performance test (Method 5 or 29 at 40CFR ~~part~~ 60, appendix A-3 or appendix A-8).

Sulfur dioxide	150 parts per million dry volume.	3-run average (for Method 6, collect a minimum of 20 liters per run; for Method 6C, 1 hour minimum sample time per run).	Performance test (Method 6 or 6C of 40CFR ~~part~~ 60, appendix A-4).

[a] The date specified in the state plan can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018.

[b] All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions. For dioxins/furans, ~~you~~ the owner or operator shall meet either the total mass basis limit or the toxic equivalency basis limit.

[c] ~~Incorporated by reference, see 40 CFR § 60.17.~~ In lieu of performance testing, the owner or operator 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 the owner or operator complies with the CEMS or integrated sorbent trap monitoring system requirements applicable to the specific pollutant in 9.9.a through 9.9.z and 9.10.a through 9.10.5. As prescribed in 9.9.u, if the owner or operator uses a CEMS or integrated sorbent trap monitoring system to demonstrate compliance with an emissions limit, the averaging time is a 30-day rolling average of 1-hour arithmetic average emission concentrations.

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

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

RIN 2060–AT84

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

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

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

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

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA–HQ–OAR–2003–0119. All documents in the docket are listed on the *https://www.regulations.gov* website. Although listed, some information is not publicly available, *e.g.,* confidential business information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available electronically through *https://www.regulations.gov*, or in hard copy at the EPA Docket Center, WJC West Building, Room Number 3334, 1301 Constitution Ave. NW, Washington, DC. The Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m. Eastern Standard Time (EST), Monday through Friday. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the Docket Center is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: Dr. Nabanita Modak Fischer, Fuels and Incineration Group, Sector Policies and Programs Division (E143–05), Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–5572; fax number: (919) 541–0516; email address: *modak.nabanita@epa.gov*.

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

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

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

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F. Executive Order 13132: Federalism
G. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
H. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks
I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use
J. National Technology Transfer and Advancement Act (NTTAA)
K. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations
L. Congressional Review Act (CRA)

I. General Information

A. Does this action apply to me?

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

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

Category	NAICS [1] code	Examples of potentially regulated entities
	321, 322, 337	Manufacturers of wood products; Manufacturers of pulp, paper, and paperboard; Manufacturers of furniture and related products.
	325, 326	Manufacturers of chemicals and allied products; Manufacturers of plastics and rubber products.
	327	Manufacturers of cement; Nonmetallic mineral product manufacturing.
	333, 336	Manufacturers of machinery; Manufacturers of transportation equipment.
	423, 44	Merchant wholesalers, durable goods; Retail trade.

[1] North American Industry Classification System.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by the final action. To determine whether your facility will be affected by this action, you should examine the applicability criteria in 40 Code of Federal Regulations (CFR) 60.2010 of subpart CCCC, 40 CFR 60.2505 of subpart DDDD, and 40 CFR 241. If you have any questions regarding the applicability of the final action to a particular entity, contact the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

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

The docket number for this final action regarding the CISWI Technical Amendments is Docket ID No. EPA–HQ–OAR–2003–0119.

In addition to being available in the docket, an electronic copy of this action is available on the internet. Following signature by the Administrator, the EPA will post a copy of this final action at *https://www.epa.gov/stationary-sources-air-pollution/commercial-and-industrial-solid-waste-incineration-units-ciswi-new*. Following publication in the **Federal Register**, the EPA will post the **Federal Register** version and key technical documents at the same website.

C. Judicial Review

Under Clean Air Act (CAA) section 307(b)(1), judicial review of this final rule is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) by June 17, 2019. Under CAA section 307(d)(7)(B), only an objection to this final rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Any person who believes the final rule contains provisions that were not reasonably forseeable based on the proposed rule should submit a Petition for Reconsideration to the Office of the Administrator, Environmental Protection Agency, Room 3000, EPA WJC South Building, 1200 Pennsylvania Ave. NW, Washington, DC 20460, with a copy to the persons listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460. Note, under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce these requirements.

II. Background

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

Section 129 of the CAA requires the EPA to establish NSPS and EG pursuant to sections 111 and 129 of the CAA for new and existing solid waste incineration units located at commercial and industrial facilities. This action amends standards developed under these authorities.

B. Background Information

On March 21, 2011, the EPA promulgated revised NSPS and EG for CISWI units (*i.e.,* solid waste incineration units located at commercial or industrial facilities). Following that action, the Administrator received petitions for reconsideration that identified certain issues that warranted further opportunity for public comment. In response to the petitions, the EPA reconsidered, proposed revisions to, and requested comment on several provisions of the March 2011 final NSPS and EG for CISWI units. These proposed revisions were published on December 23, 2011 (76 FR 80452).

On February 7, 2013, the EPA finalized revisions to the CISWI NSPS and EG (78 FR 9112). In that final action, the EPA made additional revisions in response to comments that had not been proposed in the December 23, 2011, **Federal Register** document. Subsequently, the EPA received petitions for reconsideration of the final 2013 action. These petitions assert that the public did not have sufficient opportunity to comment on some of the provisions contained in that final rule. In response, the EPA proposed to reconsider four provisions of the 2013 final revisions to the NSPS and EG for CISWI units (80 FR 3018, January 21, 2015). The EPA took final action on that proposal on June 23, 2016 (81 FR 40956). We will refer to this final CISWI rule, as revised through June 2016, as the 2016 CISWI rule.

Following promulgation of the 2016 CISWI rule, the EPA received requests from industry stakeholders and implementing agencies to clarify various issues with implementation of the standards. In addition, the EPA identified certain testing and monitoring issues and inconsistencies within the rules that required further clarification or correction. On June 15, 2018, the EPA proposed amendments to several provisions of the 2016 CISWI rule to address these issues (83 FR 28068). In addition, the EPA identified additional regulatory provisions, beyond those raised by the requests from industry stakeholders and implementing agencies, that require clarification and editorial correction to address inconsistencies and errors in the final rules. In this document, the EPA is taking final action on the June 2018 proposal by promulgating clarifying changes and corrections to the 2016 CISWI rule.

For more detailed background and additional information on how this rule is related to other CAA combustion rules issued under CAA section 112 and the Resource Conservation and Recovery Act definition of solid waste, refer to the prior final actions discussed above (76 FR 15704, March 21, 2011; 78 FR 9112, February 7, 2013).

III. Summary of Final Action

In this final rule, we are amending the 2016 CISWI rule to address certain

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

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

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

A. EG 30-Day Rolling Average Provisions

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

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

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

IV. Public Comments

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

V. Rationale for Final Amendments to 2016 CISWI Rule

A. Discussion of Final Technical Amendments

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

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

The December 23, 2011, proposed CISWI reconsideration rule preamble discussed and presented equivalent emission limits for waste-burning kilns expressed on a production basis (76 FR 80458). In the February 2013 CISWI final reconsideration rule preamble, the EPA again included these equivalent production-based limits, but at that time the EPA decided not to codify these within the rule text. In the process of approving state plans to implement the CISWI EG, the EPA has recognized that there is a benefit to some affected sources and implementing agencies in codifying the emission limit for Hg for waste-burning kilns expressed as a production-based limit (*i.e.,* lb/MM ton clinker) as an alternative equivalent standard to the existing concentration-based standard (*i.e.,* mg/dscm), because this is the format of the Hg standards found in the PC NESHAP. The EPA strives to make compliance with both CISWI standards and the PC NESHAP as streamlined and consistent as possible to facilitate compliance with both standards because these sources (and energy recovery units) must comply with the CISWI standard when they are combusting solid waste and must comply with the PC NESHAP or Boiler Maximum Achievable Control Technology standards, as applicable, when combusting nonwaste materials. Having an equivalent emission limit in the same units as the PC NESHAP will, thus, aid affected sources in demonstrating compliance with both standards, and will aid implementing agencies in enforcing the standards.

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

2. Timing of Initial Test and Initial Performance Evaluation

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

the requirement to conduct a performance evaluation within 60 days of installation could present a situation for sources where the deadline for conducting the performance evaluation would precede the deadline for conducting the initial performance test. The EPA did not intend to require sources to conduct duplicative initial performance tests, and we see a benefit to sources and implementing agencies to be able to schedule and conduct both of these demonstrations at the same time. Therefore, the EPA is adjusting the timing of the continuous monitoring system initial performance evaluation to allow 180 days from installation to match the schedule which is allowed for conducting the initial performance test. The EPA has determined that making these timelines consistent (*i.e.,* 180 days from installation) will streamline compliance demonstrations and prevent possible duplicative testing requirements.

3. Extension of Electronic Data Reporting Requirement

In this action, the EPA is extending the electronic reporting requirement dates found in 40 CFR 60.2235(a) and 60.2795(a). The electronic reporting provisions promulgated in CISWI require submittal of initial, annual, and deviation reports electronically through the EPA's Compliance and Emissions Data Reporting Interface (CEDRI), which is accessed through the EPA's Central Data Exchange. The existing rule provides that the requirement for electronic submittal will take effect once the relevant forms have been available in CEDRI for 90 calendar days. As stated in the CISWI reconsideration (81 FR 40956), the EPA intended to make the requirements of the CISWI rule consistent with the *Electronic Reporting and Recordkeeping Requirements for New Source Performance Standards,* which was proposed on March 20, 2015 (80 FR 15100).[1] However, the CISWI reconsideration final rule was published on June 23, 2016 (81 FR 40956), before the *Electronic Reporting and Recordkeeping Requirements for New Source Performance Standards* rule [2] was finalized and did not take into account comments received on that rule.

The extension for CISWI units in this action is consistent with the EPA's approach to electronic reporting outlined in the *Electronic Reporting and Recordkeeping Requirements for New Source Performance Standards* final rule.[3] This approach has also been used in recent EPA rulemakings (*e.g., National Emissions Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semi Chemical Pulp Mills,* 82 FR 47328 (October 11, 2017); *National Emissions Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works Residual Risk and Technology Review,* 82 FR 49513, October 26, 2017). The extension requires electronic submission of initial, annual, and deviation reports 2 years from publication of the final rule or 1 year after the reporting form becomes available in CEDRI, whichever date is later. This extension is necessary to allow the EPA time to develop and adequately test the new forms and for regulated entities to become familiar with the forms and reprogram systems that collect data for periodic reports once the forms are available. The extension also allows state, local, and tribal agencies more time to implement electronic reporting and to make any needed permit revisions to accommodate electronic reporting and allows for development of third-party software to populate the reporting forms.

4. Clarification of Non-Delegated Authorities

In this action, the EPA is making final corrections to the authorities listed in 40 CFR 60.2030(c). Specifically, the reference to 40 CFR 60.2125(j) is an outdated reference to previously proposed, but never promulgated, performance test waiver provisions. These provisions were included in the June 4, 2010, CISWI proposed rule (*see* 75 FR 31975), but were not made final in the March 21, 2011, final rule (*see* 76 FR 15752–3). This reference was inadvertently not included in the final rule to reflect that the proposed 40 CFR 60.2125(j) was not finalized. Another correction relates to the provisions of 40 CFR 60.2030(c)(10) that require obtaining a determination from the EPA of whether a qualifying small power facility or cogeneration facility is combusting homogeneous waste. We intended to remove these provisions in the 2013 CISWI final rule as part of the removal of the definition of homogeneous waste (*see* 78 FR 9124, February 7, 2013). As discussed in the preamble to the February 7, 2013, final revision action, the EPA determined that the proposed ''definition and provisions could be interpreted in a manner that would be unduly restrictive.'' Therefore, the EPA did not include a definition of ''homogeneous waste'' in the final CISWI rule and the Agency stated it was (without actually amending the CFR text to reflect its intent) ''removing the requirement that qualifying small power producers and qualifying cogeneration facilities that combust solid waste obtain a determination from the EPA that such waste is homogeneous.'' *Id.* Accordingly, the EPA is removing paragraph 40 CFR 60.2030(c)(10). While no other authorities have been added or removed from this list, the EPA is making minor revisions to streamline the section by removing the reserved subparagraphs *(i.e.,* (5) and (10)) and renumbering the subparagraphs sequentially.

In this action, we are also clarifying, with respect to the EG, which authorities will not be delegated. Language in 40 CFR 60.2542 simply contains a reference to the analogous paragraph (40 CFR 60.2030(c)) within the CISWI NSPS. However, since the CISWI NSPS applies to new sources, applicability of these non-delegated authorities to state plans implementing the emission guidelines for existing sources was unclear to implementing agencies. To remove this confusion, we have eliminated the cross reference to 40 CFR 60.2030(c) and have instead provided the specific details on which authorities will not be delegated within the text of 40 CFR 60.2542. The final list of authorities in 40 CFR 60.2542 matches the updated list found in 40 CFR 60.2030(c), with the appropriate adjustments made to subpart section cross references.

5. Demonstrating Initial Compliance When Using CEMS

As the EPA noted at proposal, (*see* 83 FR 28072, June 15, 2018), the provisions regarding CEMS monitoring for demonstrating initial compliance are inconsistent and somewhat unclear. The final CISWI rules require some sources to demonstrate compliance using CEMS, and allow the option for any source to use CEMS to demonstrate compliance ''with any of the emission limits of this subpart'' (*see* 40 CFR 60.2145(u) and 60.2710(u)). However, for most of the

[1] Originally, the *Electronic Reporting and Recordkeeping Requirements for New Source Performance Standards* rule included CISWI as one of the affected subparts. However, because the CISWI reconsideration package was proposed at nearly the same time as that rule, CISWI was removed as an affected subpart, and the language associated with the *Electronic Reporting and Recordkeeping Requirements for New Source Performance Standards* rule was inserted into the CISWI reconsideration proposal.

[2] This final rule was signed on December 21, 2016, but was withdrawn from the Office of the Federal Register prior to publication.

[3] The prepublication version of the final rule is available at *https://www.epa.gov/sites/production/files/2017-04/documents/e-reporting-nsps-final-rule-pre-publication.pdf.* Accessed November 15, 2018.

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

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

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

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

7. Clarification of Other CEMS Requirements

In addition to the CEMS-related requirements discussed above, the EPA is making two other CEMS-related clarifications in this final rule: (1) To not require CO CEMS for new waste-burning kilns; and (2) to remove outdated notification requirements when particulate matter CEMS are being used. For the CO CEMS issue, the rule as finalized in February 7, 2013, erroneously includes a requirement at 40 CFR 60.2145(j) for new waste-burning kilns to demonstrate compliance with CO emission limits using CEMS. This issue was not corrected in the 2016 final rules and is inconsistent with the requirements found in Table 7 to 40 CFR 60, subpart CCCC, and with the EPA's intent to remove CO CEMS requirements for new CISWI sources, as stated in the February 7, 2013, final CISWI rules (*see* 78 FR 9120). Carbon monoxide CEMS are allowed as an alternative compliance demonstration, but sources who adopt this alternative are not required to conduct annual testing using EPA Method 10. To make this clarification, the EPA is revising 40 CFR 60.2145(j) to reflect that CO is one of the pollutants for which an annual test is required and removing CO from the list of pollutants requiring CEMS for demonstrating compliance.

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

8. Clarification of Reduced Testing Requirements

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

testing being skipped; etc. In other words, starting with the initial compliance test (first year), for the first and second years, a source would perform compliance testing; for the third and fourth years, the source could skip testing (if both the first and second-year results showed that the source achieves 75 percent or less of the applicable standard); for the fifth year a source would perform compliance testing; for the sixth and seventh years, the source could skip testing (if the fifth-year results showed that the source achieves 75 percent or less of the applicable standard); for the eighth year, a source would perform compliance testing, and so on. Since the promulgation of these standards, these skip testing provisions have been refined and promulgated during regulatory development efforts in the CAA section 129 rulemakings for sewage sludge incinerators (40 CFR part 60, subparts LLLL and MMMM). In this action, the EPA is clarifying the ongoing allowance for reduced testing provisions we intended, based largely on language used in the recent sewage sludge incinerator rule (*see* 81 FR 26039, April 29, 2016).

9. Clarification of Deviation Reporting Requirements for Continuous Monitoring Data

The EPA has become aware of some unclear requirements in the deviation reporting requirements of 40 CFR 60.2215(a) and 60.2775(a). In particular, the requirements for continuously measured parameters or emissions using CEMS are not clearly outlined within these sections. While these provisions are clear for 3-hour average parameters and performance testing, the EPA recognizes that 30-day averages allowed for energy recovery units and particulate matter CEMS were inadvertently omitted, as well as requirements for any other 30-day average measured using CEMS that deviated from an emission limit. The EPA is adding language to these paragraphs to clarify that deviations for these other operating parameters or CEMS measurements that deviate from an operating limit or emissions limitation must be included in a deviation report.

10. Clarification of ACI Requirements

Since promulgation of the 2016 CISWI final rule, the EPA has received various questions from implementing agencies regarding the applicability of CISWI to ACI. While the limited requirements of ACIs burning only wood waste, clean lumber, or a mixture of wood waste, clean lumber, and/or yard waste are defined within the rule, ACIs' status as a CISWI-affected source is unclear to some implementing agencies as they work to prepare state plans and negative declarations because of confusing language in the 2016 CISWI Rule. *See* 40 CFR 60.2550. Specifically, the section of the EG addressing the units subject to the final CISWI rule includes a reference to ACI in 40 CFR 60.2550(a)(1), but 40 CFR 60.2550(a)(2) further states that only units that meet the definition of a CISWI unit are subject to the final rule, and ACIs do not meet the regulatory definition of a CISWI unit.[4]

Notwithstanding that provision, the record demonstrates that the EPA considers ACIs located at commercial and industrial facilities and otherwise meeting the definition of an ACI as being CISWI-affected sources. *See* CAA section 129(g)(1)(C) (defining ACIs) and 40 CFR 60.2245–2260 of the NSPS and 60.2810–2870 of the EG (setting forth the CISWI EG requirements applicable to ACI). Facilities can have CISWI-affected ACIs even if they do not have CISWI units located at the facility. If an ACI begins burning solid waste as defined in the *Non Hazardous Secondary Materials* rule (*see* 40 CFR part 241) in addition to, or instead of, wood waste, clean lumber, or a mixture of wood waste, clean lumber, and/or yard waste, it is a solid waste incineration unit that is subject to the applicable numerical emission standards contained in CISWI or another CAA section 129 standard, depending on the type of waste combusted (*e.g.,* such as a unit burning more than 30-percent municipal solid waste would be a municipal solid waste incineration unit instead of a CISWI unit).

The EPA's intent is further demonstrated in a response to comment on title V permitting requirements for ACIs in the preamble to the March 21, 2011, final CISWI rule (76 FR 15741):

Commenters are correct that ACIs are not solid waste incineration units pursuant to CAA section 129(g)(1)(C), but that is only correct if the units ''only burn wood wastes, yard wastes and clean lumber and [they] * * * comply with opacity limitations to be established by the Administrator by rule.'' The EPA has established opacity limitations for ACIs pursuant to CAA sections 111 and 129.

Pursuant to CAA section 502(a), sources subject to standards or regulations under CAA section 111 must obtain a title V permit; therefore, ACIs are required to obtain a title V permit. As commenters note, the EPA may exempt minor and area sources from the requirement to obtain a title V permit, but the EPA must first determine that compliance with title V requirements is ''impracticable, infeasible, or unnecessarily burdensome'' for the sources before exempting them (CAA section 502(a)). The EPA has not made the necessary finding pursuant to CAA section 502(a) for ACIs in any of the CAA section 129 rulemakings, and we believe that ACIs exist at CAA section 129 facilities other than at the commercial and industrial facilities subject to this final rule. Because we think it is important to treat all ACIs in the same manner, we decline to consider a title V exemption for minor and area source ACIs at commercial and industrial facilities.

As the record demonstrates, the EPA determined that ACIs located at commercial and industrial facilities are CISWI-affected sources that must be included in state plans and regulated consistent with the final CISWI standards applicable to such units. To address the uncertainty created by the CISWI rule, the EPA is clarifying the affected source status of ACIs by revising the regulations to make clear that ''air curtain incinerators'' do not need to meet the definition of a ''CISWI unit'' to be subject to the CISWI rule (40 CFR 60.2010 of the NSPS and 40 CFR 60.2500 and 60.2550 of the EG).

B. Typographical Errors and Corrections

In this action, we are also revising the final rule to correct minor typographical errors and clarify provisions that are unclear. The list of these changes is included in the *Typographical Errors and Corrections for Final Technical Amendments* memorandum in Docket ID No. EPA–OAR–HQ–2003–0119.

C. Environmental, Energy, and Economic Impacts

This action makes technical and clarifying corrections to aid in implementation and compliance, but does not make substantive changes to the February 7, 2013, final CISWI rule (78 FR 9112).[5] As such, there are no environmental, energy, or economic impacts associated with this final action. The impacts associated with the CISWI rule were discussed in detail in

[4] The phrasing of the regulations at 40 CFR 60.2010 and 60.2015 of the NSPS similarly confuse the applicability of the final CISWI rule to new ACIs located at commercial and industrial facilities.

[5] The June 23, 2016, final CISWI rule amendments (81 FR 40956) also did not entail any environmental, energy or economic impacts, and therefore the February 7, 2013, final CISWI rule presents the impacts associated with the CISWI rule.

the February 7, 2013, final CISWI rule document.

VI. Statutory and Executive Order Reviews

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

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

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review.

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

This action is considered an Executive Order 13771 deregulatory action. This final rule provides meaningful burden reduction by providing additional regulatory flexibilities that address several implementation issues raised by the stakeholders.

C. Paperwork Reduction Act (PRA)

This action does not impose any new information collection burden under the PRA. OMB has previously approved the information collection activities contained in the existing regulations and has assigned OMB Control number 2060–0662 for 40 CFR part 60, subpart CCCC, and OMB Control number 2060–0664 for 40 CFR part 60, subpart DDDD. This action is believed to result in no changes to the information collection requirements of the 2016 CISWI rule, so that the information collection estimate of project cost and hour burden from the 2016 CISWI Rule have not been revised.

D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the impact of concern is any significant adverse economic impact on small entities. An agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, has no net burden, or otherwise has a positive economic effect on the small entities subject to the rule. This final rule will not impose any new requirements on any entities because it does not impose any additional regulatory requirements relative to those specified in the 2016 CISWI rule, which also did not impose any additional regulatory requirements beyond those specified in the February 2013 final CISWI rule. The February 2013 final CISWI rule was certified as not having a significant economic impact on a substantial number of small entities. We have, therefore, concluded that this action will have no net regulatory burden for all directly regulated small entities.

E. Unfunded Mandates Reform Act (UMRA)

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

F. Executive Order 13132: Federalism

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

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

This action does not have tribal implications as specified in Executive Order 13175. The EPA is not aware of any CISWI in Indian country or owned or operated by Indian tribal governments. The CISWI aspects of this rule may, however, invoke minor indirect tribal implications to the extent that entities generating solid wastes on tribal lands could be affected. Thus, Executive Order 13175 does not apply to this action.

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

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

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

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

J. National Technology Transfer and Advancement Act (NTTAA)

This rulemaking does not involve technical standards.

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

The EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations, and/or indigenous peoples, as specified in Executive Order 12898 (58 FR 7629, February 16, 1994).

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

L. Congressional Review Act (CRA)

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

List of Subjects in 40 CFR Part 60

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

Dated: March 18, 2019.

Andrew R. Wheeler,

Administrator.

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

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

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

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

§ 60.17 [Amended]

■ 2. Amend § 60.17 by:

■ a. In paragraph (g)(14), by removing ''60.2710(s), (t), and (w),''and adding, it its place, ''60.2710(s) and (t),''; and
■ b. In paragraph (h)(190), by removing ''tables 1, 5,'' and adding, in its place, ''tables 5,''.

■ 3. Revise subpart CCCC to read as follows:

Sec.

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

Introduction

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

Applicability

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

Preconstruction Siting Analysis

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

Waste Management Plan

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

Operator Training and Qualification

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

Emission Limitations and Operating Limits

60.2105 What emission limitations must I meet and by when?
60.2110 What operating limits must I meet and by when?
60.2115 What if I do not use a wet scrubber, fabric filter, activated carbon injection, selective noncatalytic reduction, an electrostatic precipitator, or a dry scrubber to comply with the emission limitations?

Performance Testing

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

Initial Compliance Requirements

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

Continuous Compliance Requirements

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

Monitoring

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

Recordkeeping and Reporting

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

Title V Operating Permits

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

Air Curtain Incinerators (ACIs)

60.2245 What is an air curtain incinerator?
60.2250 What are the emission limitations for air curtain incinerators?
60.2255 How must I monitor opacity for air curtain incinerators?
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Subpart CCCC—Standards of Performance for Commercial and Industrial Solid Waste Incineration Units

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).

§ 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.

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 × 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 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 milliamps;

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

(iii) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp output values, or their digital equivalent, from the PM CPMS for the periods corresponding to the compliance test runs (*e.g.,* average all your PM CPMS output values for three corresponding 2-hour Method 5I test runs).

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

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

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

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

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

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

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

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

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:

$$R = \left(\frac{Y_1}{X_{1-z}}\right) \qquad \text{(Eq. 2)}$$

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:

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

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 secction, 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:

$$O_n = \frac{1}{n}\sum_{i=1}^{n} X_1 \qquad \text{(Eq. 4)}$$

Where:

X_1 = 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.

§ 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:

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

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

$\%O_2$ = oxygen concentration measured on a dry basis, percent.

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

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

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

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

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

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

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

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

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

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

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

§ 60.2130 How are the performance test data used?

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

Initial Compliance Requirements

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

(a) You must conduct a performance test, as required under §§ 60.2125 and 60.2105to 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 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 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 compliance with particulate matter using CPMS.

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

(i) You must use a measurement span value for any HCl CEMS of 0–10 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:

$$\frac{Certified\ reference\ gas\ value}{Measured\ value\ of\ reference\ gas}\ x\ Measured\ stack\ gas\ result = Normalized\ stack\ gas\ result \qquad \text{(Eq. 6)}$$

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

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

(i) You must operate a mercury CEMS system in accordance with performance specification 12A of 40 CFR part 60, appendix B or an integrated sorbent trap monitoring system in accordance with performance specification 12B of 40 CFR part 60, appendix B; these monitoring systems must be quality assured according to procedure 5 of 40

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 continuouscompliance 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 (l) 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:

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

Where:

C_{ks} = Kiln stack concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O_2.)
Q_{ab} = Alkali bypass flow rate (volume/hr)
C_{ab} = Alkali bypass concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O_2.)
Q_{cm} = In-line coal mill flow rate (volume/hr)
C_{cm} = In-line coal mill concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O_2.)
Q_{ks} = Kiln stack flow rate (volume/hr)

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

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

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

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

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

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

§ 60.2155 May I conduct performance testing less often?

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

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

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

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

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

(ii) For fugitive emissions, visible emissions (of combustion ash from the ash conveying system) for 2 percent of the time during each of the three 1-hour observations periods.

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

(b) [Reserved]

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

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

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

Monitoring

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

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

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

(1) 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 measruing 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 (o) of this section. If you have a deviation from the operating limits or the emission limitations, you must also submit deviation reports as specified in §§ 60.2215, 60.2220, and 60.2225:

(a) Company name and address;

(b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report;

(c) Date of report and beginning and ending dates of the reporting period;

(d) The values for the operating limits established pursuant to § 60.2110 or § 60.2115;

(e) If no deviation from any emission limitation or operating limit that applies to you has been reported, a statement that there was no deviation from the emission limitations or operating limits during the reporting period;

(f) The highest recorded 3-hour average and the lowest recorded 3-hour average (30-day average for energy recovery units), as applicable, for each operating parameter recorded for the calendar year being reported;

(g) Information recorded under § 60.2175(b)(6) and (c) through (e) for the calendar year being reported;

(h) For each performance test conducted during the reporting period, if any performance test is conducted, the process unit(s) tested, the pollutant(s) tested and the date that such performance test was conducted. Submit, following the procedure specified in § 60.2235(b)(1), the performance test report no later than the date that you submit the annual report;

(i) If you met the requirements of § 60.2155(a) or (b), and did not conduct a performance test during the reporting period, you must state that you met the requirements of § 60.2155(a) or (b), and, therefore, you were not required to conduct a performance test during the reporting period;

(j) Documentation of periods when all qualified CISWI operators were unavailable for more than 8 hours, but less than 2 weeks;

(k) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and that caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 60.11(d), including actions taken to correct a malfunction;

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

(1) The total operating time of the CISWI at which the deviation occurred during the reporting period; and

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

(m) If there were periods during which the continuous monitoring system, including the CEMS, was out of control as specified in paragraph (o) of this section, the annual report must contain the following information for each deviation from an emission or operating limitation occurring for a CISWI for which you are using a continuous monitoring system to comply with the emission and operating limitations in this subpart:

(1) The date and time that each malfunction started and stopped;

(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks;

(3) The date, time, and duration that each continuous monitoring system was out-of-control, including start and end dates and hours and descriptions of corrective actions taken;

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period;

(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period;

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes;

(7) A summary of the total duration of continuous monitoring system downtime during the reporting period, and the total duration of continuous monitoring system downtime as a percent of the total operating time of the CISWI at which the continuous monitoring system downtime occurred during that reporting period;

(8) An identification of each parameter and pollutant that was monitored at the CISWI;

(9) A brief description of the CISWI;

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

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

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

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

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

(1) The zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard;

(2) The continuous monitoring system fails a performance test audit (*e.g.,* cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; and

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

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

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

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

§ 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 incineratorsprovided 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).
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 REQUIREMENTS [1]

Report	Due date	Contents	Reference
Preconstruction report	Prior to commencing construction	• Statement of intent to construct • Anticipated date of commencement of construction. • Documentation for siting requirements • Waste management plan • Anticipated date of initial startup.	§ 60.2190.
Startup notification	Prior to initial startup	• Type of waste to be burned • Maximum design waste burning capacity. • Anticipated maximum charge rate • If applicable, the petition for site-specific operating limits.	§ 60.2195.
Initial test report	No later than 60 days following the initial performance test.	• Complete test report for the initial performance test. • The values for the site-specific operating limits. • Installation of bag leak detection system for fabric filter.	§ 60.2200.
Annual report	No later than 12 months following the submission of the initial test report. Subsequent reports are to be submitted no more than 12 months following the previous report.	• Name and address • Statement and signature by responsible official. • Date of report • Values for the operating limits • 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 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. • Any malfunction, deviation, or continuous monitoring system out of control periods information as specified in § 60.2210(k) through (o).	§§ 60.2205 and 60.2210.
Emission limitation or operating limit deviation report.	By August 1 of that year for data collected during the first half of the calendar year. By February 1 of the following year for data collected during the second half of the calendar year.	• 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. • Dates, times and causes for monitor downtime incidents.	§ 60.2215 and 60.2220.

TABLE 4 TO SUBPART CCCC OF PART 60—SUMMARY OF REPORTING REQUIREMENTS [1]—Continued

Report	Due date	Contents	Reference
Qualified operator deviation notification.	Within 10 days of deviation	• Statement of cause of deviation • Description of efforts to have an accessible qualified operator. • The date a qualified operator will be accessible.	§ 60.2225(a)(1).
Qualified operator deviation status report.	Every 4 weeks following deviation	• Description of efforts to have an accessible qualified operator. • The date a qualified operator will be accessible. • Request for approval to continue operation.	§ 60.2225(a)(2).
Qualified operator deviation notification of resumed operation.	Prior to resuming operation	• Notification that you are resuming operation.	§ 60.2225(b).

[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).
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 standard cubic meters per run).	Performance test (Method 26 or 26A at 40 CFR part 60, appendix A–8).
Lead	0.096 milligrams per dry standard cubic meter.	Biomass-0.014 milligrams per dry standard cubic meter. Coal-0.057 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 4 dry standard cubic meters per run).	Performance test (Method 29 at 40 CFR part 60, appendix A–8). Use ICPMS for the analytical finish.
Mercury	0.00056 milligrams per dry standard cubic meter.	Biomass-0.0022 milligrams per dry standard cubic meter. Coal-0.013 milligrams per dry standard cubic meter.	3-run average (collect enough volume to meet an in-stack detection limit data quality objective of 0.03 ug/dscm).	Performance test (Method 29 or 30B at 40 CFR part 60, appendix A–8) or ASTM D6784–02 (Reapproved 2008).[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) if the unit has an annual average heat input rate less than 250 MMBtu/hr; or PM CPMS (as specified in §60.2145(x)) if the unit has an annual average heat input rate equal to or greater than 250 MMBtu/hr.
Sulfur dioxide	720 parts per million dry volume.	Biomass-7.3 parts per million dry volume. Coal-850 parts per million dry volume.	3-run average (for Method 6, collect a minimum of 60 liters, for Method 6C,1 hour minimum sample time per run).	Performance test (Method 6 or 6C at 40 CFR part 60, appendix A–4).

[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 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 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).

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—Continued

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. Or 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.	30-day rolling average	PM CPMS (as specified in § 60.2145(x)).
Sulfur dioxide	28 parts per million dry volume.	30-day rolling average	Sulfur dioxide CEMS (performance specification 2 of appendix B and procedure 1 of appendix F of this part).

[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 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.

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 observation period.	Three 1-hour observation periods	Visible emissions test (Method 22 at 40 CFR part 60, appendix A–7).
Hydrogen chloride	200 parts per million by dry volume.	3-run average (For Method 26, collect a minimum volume of 60 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meter per run).	Performance test (Method 26 or 26A at 40 CFR part 60, appendix A–8).
Lead	2.0 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meters).	Performance test (Method 29 at 40 CFR part 60, appendix A–8). Use ICPMS for the analytical finish.
Mercury	0.0035 milligrams per dry standard cubic meter.	3-run average (For Method 29 and ASTM D6784–02 (Reapproved 2008) [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 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.

■ 3. Revise subpart DDDD to read as follows:

Sec.

Subpart DDDD—Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units

Introduction

60.2500 What is the purpose of this subpart?
60.2505 Am I affected by this subpart?
60.2510 Is a state plan required for all states?
60.2515 What must I include in my state plan?
60.2520 Is there an approval process for my state plan?
60.2525 What if my state plan is not approvable?
60.2530 Is there an approval process for a negative declaration letter?
60.2535 What compliance schedule must I include in my state plan?
60.2540 Are there any state plan requirements for this subpart that apply instead of the requirements specified in subpart B?
60.2541 In lieu of a state plan submittal, are there other acceptable option(s) for a state to meet its Clean Air Act section 111(d)/129(b)(2) obligations?
60.2542 What authorities will not be delegated to state, local, or tribal agencies?
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Subpart DDDD—Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units

Introduction

§ 60.2500 What is the purpose of this subpart?

This subpart establishes emission guidelines and compliance schedules for the control of emissions from commercial and industrial solid waste incineration units (CISWIs) and air curtain incinerators (ACIs). The pollutants addressed by these emission guidelines are listed in table 2 of this subpart and tables 6 through 9 of this subpart. These emission guidelines are developed in accordance with sections 111(d) and 129 of the Clean Air Act and subpart B of this part.

§ 60.2505 Am I affected by this subpart?

(a) If you are the Administrator of an air quality program in a state or United States protectorate with one or more existing CISWIs that meet the criteria in paragraphs (b) through (d) of this section, you must submit a state plan to U.S. Environmental Protection Agency (EPA) that implements the emission guidelines contained in this subpart.

(b) You must submit a state plan to EPA by December 3, 2001 for incinerator units that commenced construction on or before November 30, 1999 and that were not modified or reconstructed after June 1, 2001.

(c) You must submit a state plan that meets the requirements of this subpart and contains the more stringent emission limit for the respective pollutant in table 6 of this subpart or table 1 of subpart CCCC of this part to EPA by February 7, 2014 for incinerators that commenced construction after November 30, 1999, but no later than June 4, 2010, or commenced modification or reconstruction after June 1, 2001 but no later than August 7, 2013.

(d) You must submit a state plan to EPA that meets the requirements of this subpart and contains the emission limits in tables 7 through 9 of this subpart by February 7, 2014, for CISWIs other than incinerator units that commenced construction on or before June 4, 2010, or commenced modification or reconstruction after June 4, 2010 but no later than August 7, 2013.

§ 60.2510 Is a state plan required for all states?

No. You are not required to submit a state plan if there are no existing CISWIs in your state, and you submit a negative declaration letter in place of the state plan.

§ 60.2515 What must I include in my state plan?

(a) You must include the nine items described in paragraphs (a)(1) through (9) of this section in your state plan:

(1) Inventory of affected CISWIs, including those that have ceased operation but have not been dismantled;

(2) Inventory of emissions from affected CISWIs in your state;

(3) Compliance schedules for each affected CISWI;

(4) Emission limitations, operator training and qualification requirements, a waste management plan, and operating limits for affected CISWIs that are at least as protective as the emission guidelines contained in this subpart;

(5) Performance testing, recordkeeping, and reporting requirements;

(6) Certification that the hearing on the state plan was held, a list of witnesses and their organizational affiliations, if any, appearing at the hearing, and a brief written summary of each presentation or written submission;

(7) Provision for state progress reports to EPA;

(8) Identification of enforceable state mechanisms that you selected for implementing the emission guidelines of this subpart; and

(9) Demonstration of your state's legal authority to carry out the sections 111(d) and 129 state plan.

(b) Your state plan may deviate from the format and content of the emission guidelines contained in this subpart. However, if your state plan does deviate in content, you must demonstrate that your state plan is at least as protective as the emission guidelines contained in this subpart. Your state plan must address regulatory applicability, increments of progress for retrofit, operator training and qualification, a waste management plan, emission limitations, performance testing, operating limits, monitoring, recordkeeping and reporting, and ACI requirements.

(c) You must follow the requirements of subpart B of this part (Adoption and Submittal of State Plans for Designated Facilities) in your state plan.

§ 60.2520 Is there an approval process for my state plan?

Yes. The EPA will review your state plan according to § 60.27.

§ 60.2525 What if my state plan is not approvable?

(a) If you do not submit an approvable state plan (or a negative declaration letter) by December 2, 2002, EPA will develop a federal plan according to § 60.27 to implement the emission guidelines contained in this subpart. Owners and operators of CISWIs not covered by an approved state plan must comply with the federal plan. The federal plan is an interim action and will be automatically withdrawn when your state plan is approved.

(b) If you do not submit an approvable state plan (or a negative declaration letter) to EPA that meets the requirements of this subpart and contains the emission limits in tables 6 through 9 of this subpart for CISWIs that commenced construction on or before June 4, 2010 and incinerator or ACIs that commenced reconstruction or modification on or after June 1, 2001 but no later than August 7, 2013, then EPA will develop a federal plan according to § 60.27 to implement the emission guidelines contained in this subpart. Owners and operators of CISWIs not covered by an approved state plan must comply with the federal plan. The federal plan is an interim action and will be automatically withdrawn when your state plan is approved.

§ 60.2530 Is there an approval process for a negative declaration letter?

No. The EPA has no formal review process for negative declaration letters. Once your negative declaration letter has been received, EPA will place a copy in the public docket and publish a document in the **Federal Register**. If, at a later date, an existing CISWI is found in your state, the federal plan implementing the emission guidelines contained in this subpart would automatically apply to that CISWI until your state plan is approved.

§ 60.2535 What compliance schedule must I include in my state plan?

(a) For CISWIs in the incinerator subcategory and ACIs that commenced construction on or before November 30, 1999, your state plan must include compliance schedules that require CISWIs in the incinerator subcategory and ACIs to achieve final compliance as expeditiously as practicable after approval of the state plan but not later than the earlier of the two dates specified in paragraphs (a)(1) and (2) of this section:

(1) December 1, 2005; and

(2) Three years after the effective date of state plan approval.

(b) For CISWIs in the incinerator subcategory and ACIs that commenced construction after November 30, 1999, but on or before June 4, 2010 or that commenced reconstruction or modification on or after June 1, 2001 but no later than August 7, 2013, and for CISWIs in the small remote incinerator, energy recovery unit, and waste-burning kiln subcategories that commenced construction before June 4, 2010, your state plan must include compliance schedules that require CISWIs to achieve final compliance as expeditiously as practicable after approval of the state plan but not later than the earlier of the two dates specified in paragraphs (b)(1) and (2) of this section:

(1) February 7, 2018; and

(2) Three years after the effective date of State plan approval.

(c) For compliance schedules more than 1 year following the effective date of State plan approval, State plans must include dates for enforceable increments of progress as specified in § 60.2580.

§ 60.2540 Are there any state plan requirements for this subpart that apply instead of the requirements specified in subpart B?

Yes. Subpart B establishes general requirements for developing and processing section 111(d) plans. This subpart applies instead of the requirements in subpart B of this part for paragraphs (a) and (b) of this section:

(a) State plans developed to implement this subpart must be as protective as the emission guidelines contained in this subpart. State plans must require all CISWIs to comply by the dates specified in § 60.2535. This applies instead of the option for case-by-case less stringent emission standards and longer compliance schedules in § 60.24(f); and

(b) State plans developed to implement this subpart are required to include two increments of progress for the affected CISWIs. These two minimum increments are the final control plan submittal date and final compliance date in § 60.21(h)(1) and (5). This applies instead of the requirement of § 60.24(e)(1) that would require a state plan to include all five increments of progress for all CISWIs.

§ 60.2541 In lieu of a state plan submittal, are there other acceptable option(s) for a state to meet its Clean Air Act section 111(d)/129(b)(2) obligations?

Yes, a state may meet its Clean Air Act section 111(d)/129 obligations by submitting an acceptable written request for delegation of the federal plan that meets the requirements of this section. This is the only other option for a state to meet its Clean Air Act section 111(d)/129 obligations.

(a) An acceptable federal plan delegation request must include the following:

(1) A demonstration of adequate resources and legal authority to administer and enforce the federal plan;

(2) The items under § 60.2515(a)(1), (2) and (7);

(3) Certification that the hearing on the state delegation request, similar to the hearing for a state plan submittal, was held, a list of witnesses and their organizational affiliations, if any, appearing at the hearing, and a brief written summary of each presentation or written submission; and

(4) A commitment to enter into a Memorandum of Agreement with the Regional Administrator who sets forth the terms, conditions, and effective date of the delegation and that serves as the mechanism for the transfer of authority. Additional guidance and information is given in EPA's Delegation Manual, Item 7–139, Implementation and Enforcement of 111(d)(2) and 111(d)/(2)/129(b)(3) federal plans.

(b) A state with an already approved CISWI Clean Air Act section 111(d)/129 state plan is not precluded from receiving EPA approval of a delegation request for the revised federal plan, providing the requirements of paragraph (a) of this section are met, and at the time of the delegation request, the state also requests withdrawal of EPA's previous state plan approval.

(c) A state's Clean Air Act section 111(d)/129 obligations are separate from its obligations under Title V of the Clean Air Act.

§ 60.2542 What authorities will not be delegated to state, local, or tribal agencies?

The authorities that will not be delegated to state, local, or tribal agencies are specified in paragraphs (a) through (i) of this section:

(a) Approval of alternatives to the emission limitations in tables 2, 6, 7, 8, and 9 of this subpart and operating limits established under § 60.2675;

(b) Approval of major alternatives to test methods;

(c) Approval of major alternatives to monitoring;

(d) Approval of major alternatives to recordkeeping and reporting;

(e) The requirements in § 60.2680;

(f) The requirements in § 60.2665(b)(2);

(g) Approval of alternative opacity emission limits in § 60.2670 under § 60.11(e)(6) through (8);

(h) Performance test and data reduction waivers under § 60.8(b)(4) and (5); and

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

§ 60.2545 Does this subpart directly affect CISWI owners and operators in my state?

(a) No. This subpart does not directly affect CISWI owners and operators in your state. However, CISWI owners and operators must comply with the state plan you develop to implement the emission guidelines contained in this subpart. States may choose to incorporate the model rule text directly in their state plan.

(b) If you do not submit an approvable plan to implement and enforce the guidelines contained in this subpart for CISWIs that commenced construction before November 30, 1999 by December 2, 2002, EPA will implement and enforce a federal plan, as provided in § 60.2525, to ensure that each unit within your state reaches compliance with all the provisions of this subpart by December 1, 2005.

(c) If you do not submit an approvable plan to implement and enforce the guidelines contained in this subpart by February 7, 2014, for CISWIs that commenced construction on or before June 4, 2010, EPA will implement and enforce a federal plan, as provided in § 60.2525, to ensure that each unit within your state that commenced construction on or before June 4, 2010, reaches compliance with all the provisions of this subpart by February 7, 2018.

Applicability of State Plans

§ 60.2550 What CISWIs must I address in my state plan?

(a) Your state plan must address incineration units that meet all three criteria described in paragraphs (a)(1) through (3) of this section:

(1) Commercial and industrial solid waste incineration units and ACIs in your state that commenced construction on or before June 4, 2010, or commenced modification or

reconstruction after June 4, 2010 but no later than August 7, 2013;

(2) Incineration units that meet the definition of a CISWI as defined in § 60.2875 or an ACI as defined in § 60.2875; and

(3) Incineration units not exempt under § 60.2555.

(b) If the owner or operator of a CISWI or ACI makes changes that meet the definition of modification or reconstruction after August 7, 2013, the CISWI or ACI becomes subject to subpart CCCC of this part and the state plan no longer applies to that unit.

(c) If the owner or operator of a CISWI or ACI makes physical or operational changes to an existing CISWI or ACI primarily to comply with your state plan, subpart CCCC of this part does not apply to that unit. Such changes do not qualify as modifications or reconstructions under subpart CCCC of this part.

§ 60.2555 What combustion units are exempt from my state plan?

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 § 60.2875 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); 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 Ca 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 Agency that the qualifying small power production facility is combusting homogenous waste; and

(4) You maintain the records specified in § 60.2740(v).

(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 § 60.2740(w).

(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).

Use of Model Rule

§ 60.2560 What is the ''model rule'' in this subpart?

(a) The model rule is the portion of these emission guidelines (§§ 60.2575 through 60.2875 of this part) that addresses the regulatory requirements applicable to CISWIs. The model rule provides these requirements in regulation format. You must develop a state plan that is at least as protective as the model rule. You may use the model rule language as part of your state plan. Alternative language may be used in your state plan if you demonstrate that the alternative language is at least as protective as the model rule contained in this subpart.

(b) In the model rule of §§ 60.2575 to 60.2875, ''you'' means the owner or operator of a CISWI.

§ 60.2565 How does the model rule relate to the required elements of my state plan?

Use the model rule to satisfy the state plan requirements specified in § 60.2515(a)(4) and (5) of this part.

§ 60.2570 What are the principal components of the model rule?

The model rule contains the eleven major components listed in paragraphs (a) through (k) of this section:

(a) Increments of progress toward compliance;

(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.

Model Rule—Increments of Progress

§ 60.2575 What are my requirements for meeting increments of progress and achieving final compliance?

If you plan to achieve compliance more than 1 year following the effective date of state plan approval, you must meet the two increments of progress specified in paragraphs (a) and (b) of this section:

(a) Submit a final control plan; and

(b) Achieve final compliance.

§ 60.2580 When must I complete each increment of progress?

Table 1 of this subpart specifies compliance dates for each of the increments of progress.

§ 60.2585 What must I include in the notifications of achievement of increments of progress?

Your notification of achievement of increments of progress must include the three items specified in paragraphs (a) through (c) of this section:

(a) Notification that the increment of progress has been achieved;

(b) Any items required to be submitted with each increment of progress; and

(c) Signature of the owner or operator of the CISWI.

§ 60.2590 When must I submit the notifications of achievement of increments of progress?

Notifications for achieving increments of progress must be postmarked no later than 10 business days after the compliance date for the increment.

§ 60.2595 What if I do not meet an increment of progress?

If you fail to meet an increment of progress, you must submit a notification to the Administrator postmarked within 10 business days after the date for that increment of progress in table 1 of this subpart. You must inform the Administrator that you did not meet the increment, and you must continue to submit reports each subsequent calendar month until the increment of progress is met.

§ 60.2600 How do I comply with the increment of progress for submittal of a control plan?

For your control plan increment of progress, you must satisfy the two requirements specified in paragraphs (a) and (b) of this section:

(a) Submit the final control plan that includes the five items described in paragraphs (a)(1) through (5) of this section:

(1) A description of the devices for air pollution control and process changes that you will use to comply with the emission limitations and other requirements of this subpart;

(2) The type(s) of waste to be burned;

(3) The maximum design waste burning capacity;

(4) The anticipated maximum charge rate; and

(5) If applicable, the petition for site-specific operating limits under § 60.2680.

(b) Maintain an onsite copy of the final control plan.

§ 60.2605 How do I comply with the increment of progress for achieving final compliance?

For the final compliance increment of progress, you must complete all process changes and retrofit construction of control devices, as specified in the final control plan, so that, if the affected CISWI is brought online, all necessary process changes and air pollution control devices would operate as designed.

§ 60.2610 What must I do if I close my CISWI and then restart it?

(a) If you close your CISWI but will restart it prior to the final compliance date in your state plan, you must meet the increments of progress specified in § 60.2575.

(b) If you close your CISWI but will restart it after your final compliance date, you must complete emission control retrofits and meet the emission limitations and operating limits on the date your unit restarts operation.

§ 60.2615 What must I do if I plan to permanently close my CISWI and not restart it?

If you plan to close your CISWI rather than comply with the state plan, submit a closure notification, including the date of closure, to the Administrator by the date your final control plan is due.

Model Rule—Waste Management Plan

§ 60.2620 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.

§ 60.2625 When must I submit my waste management plan?

You must submit a waste management plan no later than the date specified in table 1 of this subpart for submittal of the final control plan.

§ 60.2630 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 the source must implement those measures considered practical and feasible, based on 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.

Model Rule—Operator Training and Qualification

§ 60.2635 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 § 60.2665.

(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 can serve as reference material following completion of the course.

§ 60.2640 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) The final compliance date (Increment 2);

(b) Six months after CISWI startup; and

(c) Six months after an employee assumes responsibility for operating the CISWI or assumes responsibility for supervising the operation of the CISWI.

§ 60.2645 How do I obtain my operator qualification?

(a) You must obtain operator qualification by completing a training course that satisfies the criteria under § 60.2635(b).

(b) Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under § 60.2635(c)(2).

§ 60.2650 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.

§ 60.2655 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 § 60.2650; and

(b) For a lapse of 3 years or more, you must repeat the initial qualification requirements in § 60.2645(a).

§ 60.2660 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 §§ 60.2620 through 60.2630;

(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 by the later of the three dates specified in paragraphs (b)(1)(i) through (iii) of this section:

(i) The final compliance date (Increment 2);

(ii) Six months after CISWI startup; and

(iii) Six months after being assigned to operate the CISWI.

(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 § 60.2660(a) as required by § 60.2660(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 § 60.2635, met the criteria for qualification under § 60.2645, and maintained or renewed their qualification under § 60.2650 or § 60.2655. Records must include documentation of training, the dates of the initial 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.

§ 60.2665 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 § 60.2660(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 § 60.2770;

(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 § 60.2635(a); and

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

Model Rule—Emission Limitations and Operating Limits

§ 60.2670 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 2 of this subpart or tables 6 through 9 of this subpart by the final compliance date under the approved state plan, federal plan, or delegation, as applicable. The emission limitations apply at all times the unit is operating including and not limited to startup, shutdown, or malfunction.

(b) Units that do not use wet scrubbers must maintain opacity to less than or equal to the percent opacity (three 1-hour blocks consisting of ten 6-minute average opacity values) specified in table 2 of this subpart, as applicable.

§ 60.2675 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 3 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.

(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 on the date that the performance test report is submitted to the EPA's Central Data Exchange or postmarked, per the requirements of § 60.2795(b).

(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 × 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, lowest 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 of 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 ten percent opacity (1-hour block average).

(i) If you use a PM CPMS to demonstrate 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) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record all hourly average output values (milliamps, or the digital signal equivalent) from the PM CPMS for the periods corresponding to the test runs (*e.g.,* three 1-hour average PM CPMS output values for three 1-hour test runs):

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

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

(iii) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp output values, or their digital equivalent, from the PM CPMS for the periods corresponding to the compliance test runs (*e.g.,* average all your PM CPMS output values for three corresponding 2-hour Method 5I test runs).

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

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

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

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

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

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

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

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

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 the digital equivalent, for your PM CPMS,

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

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

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

(iv) Determine your source specific 30-day rolling average operating limit using the mg/dscm per milliamp value, or per digital signal equivalent, 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:

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

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 digital equivalent, determined from paragraph (i)(2)(i) of this section, and
R = the relative mg/dscm per milliamp, or per 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:

$$O_n = \frac{1}{n}\sum_{i=1}^{n} X_1 \qquad \text{(Eq. 4)}$$

Where:
X_1 = 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.

§ 60.2680 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?

(a) 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 mass balances, to comply with the emission limitations under § 60.2670, 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)(1) through (5) of this section:

(1) Identification of the specific parameters you propose to use as additional operating limits;

(2) 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;

(3) 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;

(4) 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

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

(b) [Reserved]

Model Rule—Performance Testing

§ 60.2690 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 § 60.2740(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 tables 2 and 6 through 9 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:

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

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

$\%O_2$ = oxygen concentration measured on a dry basis, percent.

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

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

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

(3) For each dioxin/furan (tetra- through octa-chlorinated) isomer measured in accordance with paragraph (g)(1) and (2) of this section, multiply the isomer concentration by its corresponding toxic equivalency factor specified in table 4 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 must be used to determine compliance with the fugitive ash emission limit in table 2 of this subpart or tables 6 through 9 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 § 60.2710 and § 60.2730.

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

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

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

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

§ 60.2695 How are the performance test data used?

You use results of performance tests to demonstrate compliance with the emission limitations in table 2 of this subpart or tables 6 through 9 of this subpart.

Model Rule—Initial Compliance Requirements

§ 60.2700 How do I demonstrate initial compliance with the amended emission limitations and establish the operating limits?

(a) You must conduct a performance test, as required under §§ 60.2670 and 60.2690, to determine compliance with the emission limitations in table 2 of this subpart and tables 6 through 9 of this subpart, to establish compliance with any opacity operating limits in § 60.2675, to establish the kiln-specific emission limit in § 60.2710(y), as applicable, and to establish operating limits using the procedures in § 60.2675 or § 60.2680. The performance test must be conducted using the test methods listed in table 2 of this subpart and tables 6 through 9 of this subpart and the procedures in § 60.2690. 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 §§ 60.2690 and 60.2670, 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.

§ 60.2705 By what date must I conduct the initial performance test?

(a) The initial performance test must be conducted no later than 180 days after your final compliance date. Your final compliance date is specified in table 1 of this subpart.

(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 given 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 given solid waste within the 6 months preceding the reintroduction of that solid waste in the combustion chamber, you must conduct a performance test within 60 days from the date you reintroduce solid waste.

§ 60.2706 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 final compliance date for meeting the amended emission limitations.

(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.

Model Rule—Continuous Compliance Requirements

§ 60.2710 How do I demonstrate continuous compliance with the amended 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 § 60.2710(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;

(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 section 112 monitoring requirements or monitoring requirements under this subpart.

(b) You must conduct an annual performance test for the pollutants listed in table 2 of this subpart or tables 6 through 9 of this subpart and opacity for each CISWI as required under § 60.2690. The annual performance test must be conducted using the test methods listed in table 2 of this subpart or tables 6 through 9 of this subpart and the procedures in § 60.2690. Opacity must be measured using EPA Reference Method 9 at 40 CFR part 60. 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 § 60.2675 or established under § 60.2680 and as specified in § 60.2735. Operation above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. Three-hour block average values are used to determine compliance (except for baghouse leak detection system alarms) unless a different averaging period is established under § 60.2680 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 the operating limits specified in paragraph (a) of this section constitutes a deviation from your operating limits established under this subpart, except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits. Operating limits are confirmed or reestablished during performance tests.

(d) You must burn only the same types of waste and fuels used to establish subcategory applicability (for ERUs) and operating limits during the performance test.

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

(f) For energy recovery units, you must conduct an annual performance test for opacity using EPA Reference Method 9 at 40 CFR part 60 (except where particulate matter continuous monitoring system or CPMS are used) and the pollutants listed in table 7 of this subpart.

(g) For facilities using a CEMS to demonstrate compliance with the carbon monoxide emission limit, compliance with the carbon monoxide emission limit may be demonstrated by using the CEMS, as described in § 60.2730(o).

(h) Coal and liquid/gas energy recovery units with annual average heat input rates greater than 250 MMBtu/hr may elect to demonstrate continuous compliance with the particulate matter emissions limit using a particulate matter CEMS according to the procedures in § 60.2730(n) instead of the CPMS specified in § 60.2710(i). 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 compliance using a particulate matter CEMS according to the procedures in § 60.2730(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 but 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 § 60.2730(m).

(j) For waste-burning kilns, you must conduct an annual performance test for the pollutants (except mercury and particulate matter, and hydrogen chloride if no acid gas wet scrubber or dry scrubber is used) listed in table 8 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 particulate matter using CPMS.

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

(i) You must use a measurement span value for any HCl CEMS of 0–10 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; and

(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; and

(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:

$$\frac{\text{Certified reference gas value}}{\text{Measured value of reference gas}} = \text{Measured stack gas} = \text{Normalized stack gas result} \quad \text{(Eq. 6)}$$

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

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

(i) You must operate a mercury CEMS in accordance with performance specification 12A at 40 CFR part 60, appendix B or an integrated sorbent trap monitoring system in accordance with performance specification 12B at 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 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. 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 at 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 CMS 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 § 60.2730(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), as applicable, 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 § 60.2730 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, 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 CEMS must be 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of 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 reestablished 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, 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 3 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 an 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 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 an integrated sorbent trap monitoring system 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 system or 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; 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 an oxygen analyzer system as defined in § 60.2875 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 § 60.2675;

(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 (l) 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 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 § 60.2675.

(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 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:

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

Where:

C_{ks} = Kiln stack concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O_2.)
Q_{ab} = Alkali bypass flow rate (volume/hr)
C_{ab} = Alkali bypass concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O_2.)
Q_{cm} = In-line coal mill flow rate (volume/hr)
C_{cm} = In-line coal mill concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O_2.)
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.

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

§ 60.2715 By what date must I conduct the annual performance test?

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

§ 60.2716 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 § 60.2706.

§ 60.2720 May I conduct performance testing less often?

(a) You must conduct annual performance tests according to the schedule specified in § 60.2715, 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 § 60.2725. 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 § 60.2795(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 § 60.2875; and

(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, carbon monoxide, nitrogen oxides, sulfur dioxide, cadmium, lead, and dioxins/furans, the emission level equal to 75 percent of the applicable emission limit in table 2 or tables 6 through 9 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 observation 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 (a)(3)(ii) of this section, as applicable, you must conduct annual performance tests for the pollutant according to the schedule specified in paragraph (a) of this section until you qualify for less frequent testing for the pollutant as specified in paragraph (a)(3) of this section.

(b) [Reserved]

§ 60.2725 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.

Model Rule—Monitoring

§ 60.2730 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 § 60.2670, 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 3 of this subpart. These devices (or methods) must measure and record the values for these operating parameters at the frequencies indicated in table 3 of this subpart at all times except as specified in § 60.2735(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 emission 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 § 60.2670, 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 § 60.2680.

(d) If you use activated carbon injection to comply with the emission limitations in this subpart, you must measure the minimum 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 § 60.2690, 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 § 60.2710(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, monitoring the minimum scrubber liquor pH, and monitoring minimum injection rate.

(h) To demonstrate continuous compliance with the particulate matter emissions limit, a facility may substitute use of either a particulate matter CEMS or a particulate matter CPMS for conducting the particulate matter annual performance test. For units equipped with a particulate matter CEMS, you are not required to use other CMS monitoring for PM compliance (*e.g.,* bag leak detectors, ESP secondary power, PM scrubber pressure). A facility may also substitute use of a particulate matter CEMS for conducting the PM initial performance test.

(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 test. You must record the output of the system and analyze the sample according to EPA Method 23 at 40 CFR part 60, appendix A–7. 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 and 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 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 monitoringsystem 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. 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. Waste-burning kilns must install, calibrate, maintain, and operate a mercury CEMS or an integrated sorbent trap monitoring system as specified in § 60.2710(j).

(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 xides 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 § 60.2710(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 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 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 § 60.2710(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 § 60.2670. Energy recovery units that use a particulate matter CEMS to demonstrate initial and continuing compliance according to the procedures in § 60.2730(n) are not required to install a continuous opacity monitoring system and must perform the annual performance tests for opacity consistent with § 60.2710(f):

(1) Install, operate and maintain each continuous opacity monitoring system according to performance specification 1 at 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 performance specification 1 at 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;

(2) The initial performance evaluation must be completed no later than 180 days after the final compliance date for meeting the amended emission limitations, as specified under § 60.2690 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 at 40 CFR part 60, appendix A–3 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 § 60.2710(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 of this part;

(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 of the part from the 1-hour arithmetic average of the CEMS outlet data.

(6) At a minimum, valid continuous monitoring system hourly averages must be obtained as specified § 60.2735;

(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 (or carbon dioxide)(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, a facility

may substitute use of a CEMS for the carbon monoxide initial and annual performance test to demonstrate compliance with the carbon monoxide emissions limits:

(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 § 60.2710(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 heat input capacity of 100 MMBtu/hr or greater that do not use a carbon monoxide CEMS, you must install, operate and maintain the continuous oxygen monitoring system as defined in § 60.2875 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 § 60.2675;

(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. 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 § 60.2710(l) and (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 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 § 60.2675.

(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 final compliance date of this rule and during each quarter of source operation.

(3) Conduct accuracy checks in accordance with the procedures outlined in your site-specific monitoring plan under § 60.2710(l).

§ 60.2735 Is there a minimum amount of monitoring data I must obtain?

For each continuous monitoring system required or optionally allowed under § 60.2730, you must monitor and 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 § 60.2770(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 the monitoring system malfunctions, 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.

(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.

Model Rule—Recordkeeping and Reporting

§ 60.2740 What records must I keep?

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

(a) Calendar date of each record;

(b) Records of the data described in paragraphs (b)(1) through (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 § 60.2675(d) through (g) or § 60.2680, 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; and

(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 § 60.2675(c).

(7) If you monitor clinker production in accordance with § 60.2730(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 measruing 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 3 of this subpart or a deviation from other operating limits established under § 60.2675(d) through (g) or § 60.2680 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) Records showing the names of CISWI operators who have completed review of the information in § 60.2660(a) as required by § 60.2660(b), including the date of the initial review and all subsequent annual reviews.

(h) Records showing the names of the CISWI operators who have completed the operator training requirements under § 60.2635, met the criteria for qualification under § 60.2645, and maintained or renewed their qualification under § 60.2650 or § 60.2655. 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.

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

(j) Records of calibration of any monitoring devices as required under § 60.2730.

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

(l) The information listed in § 60.2660(a).

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

(n) Maintain records of the annual air pollution control device inspections that are required for each CISWI subject to the emissions limits in table 2 of this subpart or tables 6 through 9 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.

(o) 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.

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

(q) If you choose to stack test less frequently than annually, consistent with § 60.2720(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.

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

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

(t) 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.

(u) 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), 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 in § 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), 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).

(v) 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.

(w) 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.

§ 60.2745 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.

§ 60.2750 What reports must I submit?

See table 5 of this subpart for a summary of the reporting requirements.

§ 60.2755 When must I submit my waste management plan?

You must submit the waste management plan no later than the date specified in table 1 of this subpart for submittal of the final control plan.

§ 60.2760 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 § 60.2700, as applicable;

(b) The values for the site-specific operating limits established in § 60.2675 or § 60.2680; 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 § 60.2730(b).

§ 60.2765 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 § 60.2760. 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.)

§ 60.2770 What information must I include in my annual report?

The annual report required under § 60.2765 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 §§ 60.2775, 60.2780, and 60.2785:

(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 § 60.2675 or § 60.2680;

(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 § 60.2740(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 § 60.2795(b)(1), the performance test report no later than the date that you submit the annual report;

(i) If you met the requirements of § 60.2720(a) or (b), and did not conduct a performance test during the reporting period, you must state that you met the requirements of § 60.2720(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 CMS 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 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.

§ 60.2775 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 a 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).

§ 60.2780 What must I include in the deviation report?

In each report required under § 60.2775, for any pollutant or parameter that deviated from the emission limitations or operating limits specified in this subpart, include the four 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; and

(2) Bypass events and your corrective actions.

(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 § 60.2795(b)(1), the performance test report no later than the date that you submit the deviation report.

§ 60.2785 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 § 60.2665(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.

§ 60.2790 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 § 60.2710(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.

§ 60.2795 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 CEDRI 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*). When 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)(1) or (2) 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.

§ 60.2800 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.

Model Rule—Title V Operating Permits

§ 60.2805 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 Clean Air Act sections 129(e) and Title V.

Model Rule—Air Curtain Incinerators (ACIs)

§ 60.2810 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 § 60.2805 and under ''Air Curtain Incinerators'' (§§ 60.2810 through 60.2870):

(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.

§ 60.2815 What are my requirements for meeting increments of progress and achieving final compliance?

If you plan to achieve compliance more than 1 year following the effective date of state plan approval, you must meet the two increments of progress specified in paragraphs (a) and (b) of this section:

(a) Submit a final control plan; and

(b) Achieve final compliance.

§ 60.2820 When must I complete each increment of progress?

Table 1 of this subpart specifies compliance dates for each of the increments of progress.

§ 60.2825 What must I include in the notifications of achievement of increments of progress?

Your notification of achievement of increments of progress must include the three items described in paragraphs (a) through (c) of this section:

(a) Notification that the increment of progress has been achieved;

(b) Any items required to be submitted with each increment of progress (see § 60.2840); and

(c) Signature of the owner or operator of the incinerator.

§ 60.2830 When must I submit the notifications of achievement of increments of progress?

Notifications for achieving increments of progress must be postmarked no later than 10 business days after the compliance date for the increment.

§ 60.2835 What if I do not meet an increment of progress?

If you fail to meet an increment of progress, you must submit a notification to the Administrator postmarked within 10 business days after the date for that increment of progress in table 1 of this subpart. You must inform the Administrator that you did not meet the increment, and you must continue to submit reports each subsequent

calendar month until the increment of progress is met.

§ 60.2840 How do I comply with the increment of progress for submittal of a control plan?

For your control plan increment of progress, you must satisfy the two requirements specified in paragraphs (a) and (b) of this section:

(a) Submit the final control plan, including a description of any devices for air pollution control and any process changes that you will use to comply with the emission limitations and other requirements of this subpart; and

(b) Maintain an onsite copy of the final control plan.

§ 60.2845 How do I comply with the increment of progress for achieving final compliance?

For the final compliance increment of progress, you must complete all process changes and retrofit construction of control devices, as specified in the final control plan, so that, if the affected incinerator is brought online, all necessary process changes and air pollution control devices would operate as designed.

§ 60.2850 What must I do if I close my air curtain incinerator and then restart it?

(a) If you close your incinerator but will reopen it prior to the final compliance date in your state plan, you must meet the increments of progress specified in § 60.2815.

(b) If you close your incinerator but will restart it after your final compliance date, you must complete emission control retrofits and meet the emission limitations on the date your incinerator restarts operation.

§ 60.2855 What must I do if I plan to permanently close my air curtain incinerator and not restart it?

If you plan to close your incinerator rather than comply with the state plan, submit a closure notification, including the date of closure, to the Administrator by the date your final control plan is due.

§ 60.2860 What are the emission limitations for air curtain incinerators?

After the date the initial stack test is required or completed (whichever is earlier), you must meet the limitations 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.

§ 60.2865 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 no later than 180 days after your final compliance date.

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

§ 60.2870 What are the recordkeeping and reporting requirements for air curtain incinerators?

(a) 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.

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

(c) Submit an initial report no later than 60 days following the initial opacity test that includes the information specified in paragraphs (c)(1) and (2) of this section:

(1) The types of materials you plan to combust in your ACI; and

(2) 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.

(d) 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 and keep a copy onsite for a period of 5 years.

Model Rule—Definitions

§ 60.2875 What definitions must I know?

Terms used but not defined in this subpart are defined in the Clean Air Act and subparts A and B 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.

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

Air curtain incinerator (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 operation of a CISWI startup from a cold start until waste is fed into 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 § 60.2740(u), 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 octachlorinated dibenzo-p-dioxins and dibenzofurans.

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

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

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

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

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

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

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

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

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

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

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

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

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 by-product 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 12:00 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/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 air curtain incinerators comply with opacity limitations to be established by the Administrator by rule.

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

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

Startup period means, 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 the 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; or

(3) Clean lumber.

TABLE 1 TO SUBPART DDDD OF PART 60—MODEL RULE—INCREMENTS OF PROGRESS AND COMPLIANCE SCHEDULES

Comply with these increments of progress	By these dates [1]
Increment 1-Submit final control plan	(Dates to be specified in state plan).
Increment 2-Final compliance	(Dates to be specified in state plan).[2]

[1] Site-specific schedules can be used at the discretion of the state.

[2] The date can be no later than 3 years after the effective date of state plan approval or December 1, 2005 for CISWIs that commenced construction on or before November 30, 1999. The date can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018, for CISWIs that commenced construction on or before June 4, 2010.

TABLE 2 TO SUBPART DDDD OF PART 60—MODEL RULE—EMISSION LIMITATIONS THAT APPLY TO INCINERATORS BEFORE [DATE TO BE SPECIFIED IN STATE PLAN] [1]

For the air pollutant	You must meet this emission limitation [2]	Using this averaging time [3]	And determining compliance using this method [3]
Cadmium	0.004 milligrams per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Performance test (Method 29 of appendix A of this part).
Carbon monoxide	157 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 10, 10A, or 10B, of appendix A of this part).
Dioxins/furans (toxic equivalency basis).	0.41 nanograms per dry standard cubic meter.	3-run average (1 hour minimum sample time per run).	Performance test (Method 23 of appendix A of this part).
Hydrogen chloride	62 parts per million by dry volume	3-run average (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 or 30B at 40 CFR part 60, appendix A–8) or ASTM D6784–02 (Reapproved 2008).[4]
Opacity	10 percent	Three 1-hour blocks consisting of ten 6-minute average opacity values.	Performance test (Method 9 at 40 CFR part 60, appendix A–4).
Nitrogen oxides	388 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Methods 7 or 7E at 40 CFR part 60, appendix A–4).
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).

TABLE 2 TO SUBPART DDDD OF PART 60—MODEL RULE—EMISSION LIMITATIONS THAT APPLY TO INCINERATORS BEFORE [DATE TO BE SPECIFIED IN STATE PLAN] [1]—Continued

For the air pollutant	You must meet this emission limitation [2]	Using this averaging time [3]	And determining compliance using this method [3]
Sulfur dioxide	20 parts per million by dry volume	3-run average (1 hour minimum sample time per run).	Performance test (Method 6 or 6c of appendix A of this part).

[1] Applies only to incinerators subject to the CISWI standards through a state plan or the Federal plan prior to June 4, 2010. The date specified in the state plan can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018.

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

[3] 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 §§ 60.2710 and 60.2730. As prescribed in § 60.2710(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.

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

TABLE 3 TO SUBPART DDDD OF PART 60—MODEL RULE—OPERATING LIMITS FOR WET SCRUBBERS

For these operating parameters	You must establish these operating limits	And monitor 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 4 TO SUBPART DDDD OF PART 60—MODEL RULE—TOXIC EQUIVALENCY FACTORS

Dioxin/furan isomer	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 5 TO SUBPART DDDD OF PART 60—MODEL RULE—SUMMARY OF REPORTING REQUIREMENTS [1]

Report	Due date	Contents	Reference
Waste Management Plan	No later than the date specified in table 1 for submittal of the final control plan.	• Waste management plan	§ 60.2755.
Initial Test Report	No later than 60 days following the initial performance test.	• Complete test report for the initial performance test • The values for the site-specific operating limits • Installation of bag leak detection systems for fabric filters.	§ 60.2760.

TABLE 5 TO SUBPART DDDD OF PART 60—MODEL RULE—SUMMARY OF REPORTING REQUIREMENTS [1]—Continued

Report	Due date	Contents	Reference
Annual report	No later than 12 months following the submission of the initial test report. Subsequent reports are to be submitted no more than 12 months following the previous report.	• Name and address • Statement and signature by responsible official • Date of report • Values for the operating limits • 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. • If a performance test was conducted during the reporting period, the results of the test. • If a performance test was not conducted during the reporting period, a statement that the requirements of § 60.2720(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 § 60.2720(a), the date of the last 2 performance tests, a comparison of the emission level you achieved in the last 2 performance tests to the 75 percent emission limit threshold required in § 60.2720(a) and a statement as to whether there have been any operational changes since the last performance test that could increase emissions. • Any malfunction, deviation, or continuous monitoring system out of control periods information as specified in § 60.2770(k) through (o). • Fuel input information for energy recovery unit subcategory verification as specified in § 60.2770(p).	§§ 60.2765 and 60.2770.
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.	• 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 any test reports. • Dates, times and causes for monitor downtime incidents.	§ 60.2775 and 60.2780.
Qualified Operator Deviation Notification.	Within 10 days of deviation	• Statement of cause of deviation • Description of efforts to have an accessible qualified operator. • The date a qualified operator will be accessible	§ 60.2785(a)(1).
Qualified Operator Deviation Status Report.	Every 4 weeks following deviation.	• Description of efforts to have an accessible qualified operator. • The date a qualified operator will be accessible • Request for approval to continue operation	§ 60.2785(a)(2).
Qualified Operator Deviation Notification of Resumed Operation.	Prior to resuming operation	• Notification that you are resuming operation	§ 60.2785(b).

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

TABLE 6 TO SUBPART DDDD OF PART 60—MODEL RULE—EMISSION LIMITATIONS THAT APPLY TO INCINERATORS ON AND AFTER [DATE TO BE SPECIFIED IN STATE PLAN] [1]

For the air pollutant	You must meet this emission limitation [2]	Using this averaging time [3]	And determining compliance using this method [3]
Cadmium	0.0026 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 at 40 CFR part 60, appendix A–8). Use ICPMS for the analytical finish.
Carbon monoxide	17 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)	4.6 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 23 at 40 CFR part 60, appendix A–7).
Dioxins/furans (toxic equivalency basis).	0.13 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 23 at 40 CFR part 60, appendix A–7).

TABLE 6 TO SUBPART DDDD OF PART 60—MODEL RULE—EMISSION LIMITATIONS THAT APPLY TO INCINERATORS ON AND AFTER [DATE TO BE SPECIFIED IN STATE PLAN] [1]—Continued

For the air pollutant	You must meet this emission limitation [2]	Using this averaging time [3]	And determining compliance using this method [3]
Hydrogen chloride	29 parts per million dry volume	3-run average (For Method 26, collect a minimum volume of 60 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meter per run).	Performance test (Method 26 or 26A at 40 CFR part 60, appendix A–8).
Lead	0.015 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 at 40 CFR part 60, appendix A–8). Use ICPMS for the analytical finish.
Mercury	0.0048 milligrams per dry standard cubic meter.	3-run average (For Method 29 an ASTM D6784–02 (Reapproved 2008),[4] collect a minimum volume of 2 dry standard cubic meters per run. For Method 30B, collect a minimum sample 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).[4]
Nitrogen oxides	53 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	34 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 5 or 29 at 40 CFR part 60, appendix A–3 or appendix A–8).
Sulfur dioxide	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).
Fugitive ash	Visible emissions for no more than 5% of the hourly observation period.	Three 1-hour observation periods	Visible emission test (Method 22 at 40 CFR part 60, appendix A–7).

[1] The date specified in the state plan can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018.

[2] 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.

[3] 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 §§ 60.2710 and 60.2730. As prescribed in § 60.2710(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.

[4] Incorporated by reference, see § 60.17.

TABLE 7 TO SUBPART DDDD OF PART 60—MODEL RULE—EMISSION LIMITATIONS THAT APPLY TO ENERGY RECOVERY UNITS AFTER MAY 20, 2011 [DATE TO BE SPECIFIED IN STATE PLAN] [1]

For the air pollutant	You must meet this emission limitation [2]		Using this averaging time [3]	And determining compliance using this method [3]
	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 2 dry standard cubic meters).	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-260 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).
Dioxins/furans (total mass basis).	2.9 nanograms per dry standard cubic meter.	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 meter).	Performance test (Method 23 at 40 CFR part 60, appendix A–7).
Dioxins/furans (toxic equivalency basis).	0.32 nanograms per dry standard cubic meter.	Biomass-0.12 nanograms per dry standard cubic meter. Coal-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).

TABLE 7 TO SUBPART DDDD OF PART 60—MODEL RULE—EMISSION LIMITATIONS THAT APPLY TO ENERGY RECOVERY UNITS AFTER MAY 20, 2011 [DATE TO BE SPECIFIED IN STATE PLAN] [1]—Continued

For the air pollutant	You must meet this emission limitation [2]		Using this averaging time [3]	And determining compliance using this method [3]
	Liquid/gas	Solids		
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 of 120 liters; for Method 26A, collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 26 or 26A at 40 CFR part 60, appendix A–8).
Lead	0.096 milligrams per dry standard cubic meter.	Biomass-0.014 milligrams per dry standard cubic meter. Coal-0.057 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 at 40 CFR part 60, appendix A–8). Use ICPMS for the analytical finish.
Mercury	0.0024 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 (For Method 29 and ASTM D6784–02 (Reapproved 2008),[4] collect a minimum volume of 2 dry standard cubic meters per run. For Method 30B, collect a minimum sample 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).[4]
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-11 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).	Performance test (Method 5 or 29 at 40 CFR part 60, appendix A–3 or appendix A–8) if the unit has an annual average heat input rate less than or equal to 250 MMBtu/hr; or PM CPMS (as specified in § 60.2710(x)) if the unit has an annual average heat input rate greater than 250 MMBtu/hr.
Sulfur dioxide	720 parts per million dry volume.	Biomass-7.3 parts per million dry volume. Coal-850 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 6 or 6c at 40 CFR part 60, appendix A–4).
Fugitive ash	Visible emissions for no more than 5 percent of the hourly observation period.	Visible emissions for no more than 5 percent of the hourly observation period.	Three 1-hour observation periods.	Visible emission test (Method 22 at 40 CFR part 60, appendix A–7).

[1] The date specified in the state plan can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018.

[2] All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions. For dioxins/furans, you must meet either the total mass basis limit or the toxic equivalency basis limit.

[3] 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 §§ 60.2710 and 60.2730. As prescribed in § 60.2710(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.

[4] Incorporated by reference, see § 60.17.

TABLE 8 TO SUBPART DDDD OF PART 60—MODEL RULE—EMISSION LIMITATIONS THAT APPLY TO WASTE-BURNING KILNS AFTER MAY 20, 2011 [DATE TO BE SPECIFIED IN STATE PLAN] [1]

For the air pollutant	You must meet this emission limitation [2]	Using this averaging time [3]	And determining compliance using this method [3 4]
Cadmium	0.0014 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 at 40 CFR part 60, appendix A–8).

TABLE 8 TO SUBPART DDDD OF PART 60—MODEL RULE—EMISSION LIMITATIONS THAT APPLY TO WASTE-BURNING KILNS AFTER MAY 20, 2011 [DATE TO BE SPECIFIED IN STATE PLAN] [1]—Continued

For the air pollutant	You must meet this emission limitation [2]	Using this averaging time [3]	And determining compliance using this method [3 4]
Carbon monoxide	110 (long kilns)/790 (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)	1.3 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).	0.075 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).
Hydrogen chloride	3.0 parts per million dry volume	3-run average (collect a minimum volume of 1 dry standard cubic meter), 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 of this part). If a wet scrubber or dry scrubber is not used, HCl CEMS as specified in § 60.2710(j).
Lead	0.014 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 at 40 CFR part 60, appendix A–8).
Mercury	0.011 milligrams per dry standard cubic meter. Or 58 pounds/million tons of clinker	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 § 60.2710(j).
Nitrogen oxides	630 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	13.5 milligrams per dry standard cubic meter.	30-day rolling average	PM CPMS (as specified in § 60.2710(x)).
Sulfur dioxide	600 parts per million dry volume	3-run average (for Method 6, collect a minimum of 20 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] The date specified in the state plan can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018.

[2] All emission limitations are measured at 7 percent oxygen (except for CEMS and integrated sorbent trap monitoring system data during start-up 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.

[3] 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 §§ 60.2710 and 60.2730. As prescribed in § 60.2710(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.

[4] Alkali bypass and in-line coal mill stacks are subject to performance testing only, as specified in 60.2710(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.

TABLE 9 TO SUBPART DDDD OF PART 60—MODEL RULE—EMISSION LIMITATIONS THAT APPLY TO SMALL, REMOTE INCINERATORS AFTER MAY 20, 2011 [DATE TO BE SPECIFIED IN STATE PLAN] [1]

For the air pollutant	You must meet this emission limitation [2]	Using this averaging time [3]	And determining compliance using this method [3]
Cadmium	0.95 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	64 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)	4,400 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).	180 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 observation period.	Three 1-hour observation periods	Visible emissions test (Method 22 at 40 CFR part 60, appendix A–7).

TABLE 9 TO SUBPART DDDD OF PART 60—MODEL RULE—EMISSION LIMITATIONS THAT APPLY TO SMALL, REMOTE INCINERATORS AFTER MAY 20, 2011 [DATE TO BE SPECIFIED IN STATE PLAN] [1]—Continued

For the air pollutant	You must meet this emission limitation [2]	Using this averaging time [3]	And determining compliance using this method [3]
Hydrogen chloride	300 parts per million 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	2.1 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	0.0053 milligrams per dry standard cubic meter.	3-run average (For Method 29 and ASTM D6784–02 (Reapproved 2008),[3] collect a minimum volume of 2 dry standard cubic meters per run. For Method 30B, collect a minimum sample 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).[4]
Nitrogen oxides	190 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	150 parts per million dry volume	3-run average (for Method 6, collect a minimum of 20 liters per run; 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] The date specified in the state plan can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018.

[2] All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions. For dioxins/furans, you must meet either the total mass basis limit or the toxic equivalency basis limit.

[3] 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 §§ 60.2710 and 60.2730. As prescribed in § 60.2710(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.

[4] Incorporated by reference, see § 60.17.

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

Subpart DDDD—Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units

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Introduction

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§60.2500 What is the purpose of this subpart?

This subpart establishes emission guidelines and compliance schedules for the control of emissions from commercial and industrial solid waste incineration units (CISWIs) and air curtain incinerators (ACIs). The pollutants addressed by these emission guidelines are listed in table 2 of this subpart and tables 6 through 9 of this subpart. These emission guidelines are developed in accordance with sections 111(d) and 129 of the Clean Air Act and subpart B of this part.

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§60.2505 Am I affected by this subpart?

(a) If you are the Administrator of an air quality program in a state or United States protectorate with one or more existing CISWIs that meet the criteria in paragraphs (b) through (d) of this section, you must submit a state plan to U.S. Environmental Protection Agency (EPA) that implements the emission guidelines contained in this subpart.

(b) You must submit a state plan to EPA by December 3, 2001 for incinerator units that commenced construction on or before November 30, 1999 and that were not modified or reconstructed after June 1, 2001.

(c) You must submit a state plan that meets the requirements of this subpart and contains the more stringent emission limit for the respective pollutant in table 6 of this subpart or table 1 of subpart CCCC of this part to EPA by February 7, 2014 for incinerators that commenced construction after November 30, 1999, but no later than June 4, 2010, or commenced modification or reconstruction after June 1, 2001 but no later than August 7, 2013.

(d) You must submit a state plan to EPA that meets the requirements of this subpart and contains the emission limits in tables 7 through 9 of this subpart by February 7, 2014, for CISWIs other than incinerator units that commenced construction on or before June 4, 2010, or commenced modification or reconstruction after June 4, 2010 but no later than August 7, 2013.

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§60.2510 Is a state plan required for all states?

No. You are not required to submit a state plan if there are no existing CISWIs in your state, and you submit a negative declaration letter in place of the state plan.

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§60.2515 What must I include in my state plan?

(a) You must include the nine items described in paragraphs (a)(1) through (9) of this section in your state plan:

(1) Inventory of affected CISWIs, including those that have ceased operation but have not been dismantled;

(2) Inventory of emissions from affected CISWIs in your state;

(3) Compliance schedules for each affected CISWI;

(4) Emission limitations, operator training and qualification requirements, a waste management plan, and operating limits for affected CISWIs that are at least as protective as the emission guidelines contained in this subpart;

(5) Performance testing, recordkeeping, and reporting requirements;

(6) Certification that the hearing on the state plan was held, a list of witnesses and their organizational affiliations, if any, appearing at the hearing, and a brief written summary of each presentation or written submission;

(7) Provision for state progress reports to EPA;

(8) Identification of enforceable state mechanisms that you selected for implementing the emission guidelines of this subpart; and

(9) Demonstration of your state's legal authority to carry out the sections 111(d) and 129 state plan.

(b) Your state plan may deviate from the format and content of the emission guidelines contained in this subpart. However, if your state plan does deviate in content, you must demonstrate that your state plan is at least as protective as the emission guidelines contained in this subpart. Your state plan must address regulatory applicability, increments of progress for retrofit, operator training and qualification, a waste management plan, emission limitations, performance testing, operating limits, monitoring, recordkeeping and reporting, and ACI requirements.

(c) You must follow the requirements of subpart B of this part (Adoption and Submittal of State Plans for Designated Facilities) in your state plan.

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§60.2520 Is there an approval process for my state plan?

Yes. The EPA will review your state plan according to §60.27.

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§60.2525 What if my state plan is not approvable?

(a) If you do not submit an approvable state plan (or a negative declaration letter) by December 2, 2002, EPA will develop a federal plan according to §60.27 to implement the emission guidelines contained in this subpart. Owners and operators of CISWIs not covered by an approved state plan must comply with the federal plan. The federal plan is an interim action and will be automatically withdrawn when your state plan is approved.

(b) If you do not submit an approvable state plan (or a negative declaration letter) to EPA that meets the requirements of this subpart and contains the emission limits in tables 6 through 9 of this subpart for CISWIs that commenced construction on or before June 4, 2010 and incinerator or ACIs that commenced reconstruction or modification on or after June 1, 2001 but no later than August 7, 2013, then EPA will develop a federal plan according to §60.27 to implement the emission guidelines contained in this subpart. Owners and operators of CISWIs not covered by an approved state plan must comply with the federal plan. The federal plan is an interim action and will be automatically withdrawn when your state plan is approved.

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§60.2530 Is there an approval process for a negative declaration letter?

No. The EPA has no formal review process for negative declaration letters. Once your negative declaration letter has been received, EPA will place a copy in the public docket and publish a document in the FEDERAL REGISTER. If, at a later date, an existing CISWI is found in your state, the federal plan implementing the emission guidelines contained in this subpart would automatically apply to that CISWI until your state plan is approved.

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§60.2535 What compliance schedule must I include in my state plan?

(a) For CISWIs in the incinerator subcategory and ACIs that commenced construction on or before November 30, 1999, your state plan must include compliance schedules that require CISWIs in the incinerator subcategory and ACIs to achieve final compliance as expeditiously as practicable after approval of the state plan but not later than the earlier of the two dates specified in paragraphs (a)(1) and (2) of this section:

(1) December 1, 2005; and

(2) Three years after the effective date of state plan approval.

(b) For CISWIs in the incinerator subcategory and ACIs that commenced construction after November 30, 1999, but on or before June 4, 2010 or that commenced reconstruction or modification on or after June 1, 2001 but no later than August 7, 2013, and for CISWIs in the small remote incinerator, energy recovery unit, and waste-burning kiln subcategories that commenced construction before June 4, 2010, your state plan must include compliance schedules that require CISWIs to achieve final compliance as expeditiously as practicable after approval of the state plan but not later than the earlier of the two dates specified in paragraphs (b)(1) and (2) of this section:

(1) February 7, 2018; and

(2) Three years after the effective date of State plan approval.

(c) For compliance schedules more than 1 year following the effective date of State plan approval, State plans must include dates for enforceable increments of progress as specified in §60.2580.

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§60.2540 Are there any state plan requirements for this subpart that apply instead of the requirements specified in subpart B?

Yes. Subpart B establishes general requirements for developing and processing section 111(d) plans. This subpart applies instead of the requirements in subpart B of this part for paragraphs (a) and (b) of this section:

(a) State plans developed to implement this subpart must be as protective as the emission guidelines contained in this subpart. State plans must require all CISWIs to comply by the dates specified in §60.2535. This applies instead of the option for case-by-case less stringent emission standards and longer compliance schedules in §60.24(f); and

(b) State plans developed to implement this subpart are required to include two increments of progress for the affected CISWIs. These two minimum increments are the final control plan submittal date and final compliance date in §60.21(h)(1) and (5). This applies instead of the requirement of §60.24(e)(1) that would require a state plan to include all five increments of progress for all CISWIs.

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§60.2541 In lieu of a state plan submittal, are there other acceptable option(s) for a state to meet its Clean Air Act section 111(d)/129(b)(2) obligations?

Yes, a state may meet its Clean Air Act section 111(d)/129 obligations by submitting an acceptable written request for delegation of the federal plan that meets the requirements of this section. This is the only other option for a state to meet its Clean Air Act section 111(d)/129 obligations.

(a) An acceptable federal plan delegation request must include the following:

(1) A demonstration of adequate resources and legal authority to administer and enforce the federal plan;

(2) The items under §60.2515(a)(1), (2) and (7);

(3) Certification that the hearing on the state delegation request, similar to the hearing for a state plan submittal, was held, a list of witnesses and their organizational affiliations, if any, appearing at the hearing, and a brief written summary of each

presentation or written submission; and

(4) A commitment to enter into a Memorandum of Agreement with the Regional Administrator who sets forth the terms, conditions, and effective date of the delegation and that serves as the mechanism for the transfer of authority. Additional guidance and information is given in EPA's Delegation Manual, Item 7-139, Implementation and Enforcement of 111(d)(2) and 111(d)/(2)/129(b)(3) federal plans.

(b) A state with an already approved CISWI Clean Air Act section 111(d)/129 state plan is not precluded from receiving EPA approval of a delegation request for the revised federal plan, providing the requirements of paragraph (a) of this section are met, and at the time of the delegation request, the state also requests withdrawal of EPA's previous state plan approval.

(c) A state's Clean Air Act section 111(d)/129 obligations are separate from its obligations under Title V of the Clean Air Act.

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§60.2542 What authorities will not be delegated to state, local, or tribal agencies?

The authorities that will not be delegated to state, local, or tribal agencies are specified in paragraphs (a) through (i) of this section:

(a) Approval of alternatives to the emission limitations in tables 2, 6, 7, 8, and 9 of this subpart and operating limits established under §60.2675;

(b) Approval of major alternatives to test methods;

(c) Approval of major alternatives to monitoring;

(d) Approval of major alternatives to recordkeeping and reporting;

(e) The requirements in §60.2680;

(f) The requirements in §60.2665(b)(2);

(g) Approval of alternative opacity emission limits in §60.2670 under §60.11(e)(6) through (8);

(h) Performance test and data reduction waivers under §60.8(b)(4) and (5); and

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

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§60.2545 Does this subpart directly affect CISWI owners and operators in my state?

(a) No. This subpart does not directly affect CISWI owners and operators in your state. However, CISWI owners and operators must comply with the state plan you develop to implement the emission guidelines contained in this subpart. States may choose to incorporate the model rule text directly in their state plan.

(b) If you do not submit an approvable plan to implement and enforce the guidelines contained in this subpart for CISWIs that commenced construction before November 30, 1999 by December 2, 2002, EPA will implement and enforce a federal plan, as provided in §60.2525, to ensure that each unit within your state reaches compliance with all the provisions of this subpart by December 1, 2005.

(c) If you do not submit an approvable plan to implement and enforce the guidelines contained in this subpart by February 7, 2014, for CISWIs that commenced construction on or before June 4, 2010, EPA will implement and enforce a federal plan, as provided in §60.2525, to ensure that each unit within your state that commenced construction on or before June 4, 2010, reaches compliance with all the provisions of this subpart by February 7, 2018.

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Applicability of State Plans

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§60.2550 What CISWIs must I address in my state plan?

(a) Your state plan must address incineration units that meet all three criteria described in paragraphs (a)(1) through (3) of this section:

(1) Commercial and industrial solid waste incineration units and ACIs in your state that commenced construction on or before June 4, 2010, or commenced modification or reconstruction after June 4, 2010 but no later than August 7, 2013;

(2) Incineration units that meet the definition of a CISWI as defined in §60.2875 or an ACI as defined in §60.2875; and

(3) Incineration units not exempt under §60.2555.

(b) If the owner or operator of a CISWI or ACI makes changes that meet the definition of modification or reconstruction after August 7, 2013, the CISWI or ACI becomes subject to subpart CCCC of this part and the state plan no longer applies to that unit.

(c) If the owner or operator of a CISWI or ACI makes physical or operational changes to an existing CISWI or ACI primarily to comply with your state plan, subpart CCCC of this part does not apply to that unit. Such changes do not qualify as modifications or reconstructions under subpart CCCC of this part.

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§60.2555 What combustion units are exempt from my state plan?

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 §60.2875 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); 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 Ca 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 Agency that the qualifying small power production facility is combusting homogenous waste; and

(4) You maintain the records specified in §60.2740(v).

(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 §60.2740(w).

(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).

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Use of Model Rule

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§60.2560 What is the “model rule” in this subpart?

(a) The model rule is the portion of these emission guidelines (§§60.2575 through 60.2875 of this part) that addresses the regulatory requirements applicable to CISWIs. The model rule provides these requirements in regulation format. You must develop a state plan that is at least as protective as the model rule. You may use the model rule language as part of your state plan. Alternative language may be used in your state plan if you demonstrate that the alternative language is at least as protective as the model rule contained in this subpart.

(b) In the model rule of §§60.2575 to 60.2875, “you” means the owner or operator of a CISWI.

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§60.2565 How does the model rule relate to the required elements of my state plan?

Use the model rule to satisfy the state plan requirements specified in §60.2515(a)(4) and (5) of this part.

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§60.2570 What are the principal components of the model rule?

The model rule contains the eleven major components listed in paragraphs (a) through (k) of this section:

(a) Increments of progress toward compliance;

(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.

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Model Rule—Increments of Progress

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§60.2575 What are my requirements for meeting increments of progress and achieving final compliance?

If you plan to achieve compliance more than 1 year following the effective date of state plan approval, you must meet the two increments of progress specified in paragraphs (a) and (b) of this section:

(a) Submit a final control plan; and

(b) Achieve final compliance.

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§60.2580 When must I complete each increment of progress?

Table 1 of this subpart specifies compliance dates for each of the increments of progress.

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§60.2585 What must I include in the notifications of achievement of increments of progress?

Your notification of achievement of increments of progress must include the three items specified in paragraphs (a) through (c) of this section:

(a) Notification that the increment of progress has been achieved;

(b) Any items required to be submitted with each increment of progress; and

(c) Signature of the owner or operator of the CISWI.

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§60.2590 When must I submit the notifications of achievement of increments of progress?

Notifications for achieving increments of progress must be postmarked no later than 10 business days after the compliance date for the increment.

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§60.2595 What if I do not meet an increment of progress?

If you fail to meet an increment of progress, you must submit a notification to the Administrator postmarked within 10 business days after the date for that increment of progress in table 1 of this subpart. You must inform the Administrator that you did not meet the increment, and you must continue to submit reports each subsequent calendar month until the increment of progress is met.

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§60.2600 How do I comply with the increment of progress for submittal of a control plan?

For your control plan increment of progress, you must satisfy the two requirements specified in paragraphs (a) and (b) of this section:

(a) Submit the final control plan that includes the five items described in paragraphs (a)(1) through (5) of this section:

(1) A description of the devices for air pollution control and process changes that you will use to comply with the emission limitations and other requirements of this subpart;

(2) The type(s) of waste to be burned;

(3) The maximum design waste burning capacity;

(4) The anticipated maximum charge rate; and

(5) If applicable, the petition for site-specific operating limits under §60.2680.

(b) Maintain an onsite copy of the final control plan.

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§60.2605 How do I comply with the increment of progress for achieving final compliance?

For the final compliance increment of progress, you must complete all process changes and retrofit construction of control devices, as specified in the final control plan, so that, if the affected CISWI is brought online, all necessary process changes and air pollution control devices would operate as designed.

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§60.2610 What must I do if I close my CISWI and then restart it?

(a) If you close your CISWI but will restart it prior to the final compliance date in your state plan, you must meet the increments of progress specified in §60.2575.

(b) If you close your CISWI but will restart it after your final compliance date, you must complete emission control retrofits and meet the emission limitations and operating limits on the date your unit restarts operation.

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§60.2615 What must I do if I plan to permanently close my CISWI and not restart it?

If you plan to close your CISWI rather than comply with the state plan, submit a closure notification, including the date of closure, to the Administrator by the date your final control plan is due.

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Model Rule—Waste Management Plan

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§60.2620 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.

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§60.2625 When must I submit my waste management plan?

You must submit a waste management plan no later than the date specified in table 1 of this subpart for submittal of the final control plan.

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§60.2630 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 the source must implement those measures considered practical and feasible, based on 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.

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Model Rule—Operator Training and Qualification

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§60.2635 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 §60.2665.

(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 can serve as reference material following completion of the course.

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§60.2640 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) The final compliance date (Increment 2);

(b) Six months after CISWI startup; and

(c) Six months after an employee assumes responsibility for operating the CISWI or assumes responsibility for supervising the operation of the CISWI.

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§60.2645 How do I obtain my operator qualification?

(a) You must obtain operator qualification by completing a training course that satisfies the criteria under §60.2635(b).

(b) Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under §60.2635(c)(2).

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§60.2650 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.

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§60.2655 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 §60.2650; and

(b) For a lapse of 3 years or more, you must repeat the initial qualification requirements in §60.2645(a).

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§60.2660 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 §§60.2620 through 60.2630;

(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 by the later of the three dates specified in paragraphs (b)(1)(i) through (iii) of this section:

(i) The final compliance date (Increment 2);

(ii) Six months after CISWI startup; and

(iii) Six months after being assigned to operate the CISWI.

(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 §60.2660(a) as required by §60.2660(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 §60.2635, met the criteria for qualification under §60.2645, and maintained or renewed their qualification under §60.2650 or §60.2655. Records must include documentation of training, the dates of the initial 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.

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§60.2665 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 §60.2660(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 §60.2770;

(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 §60.2635(a); and

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

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Model Rule—Emission Limitations and Operating Limits

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§60.2670 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 2 of this subpart or tables 6 through 9 of this subpart by the final compliance date under the approved state plan, federal plan, or delegation, as applicable. The emission limitations apply at all times the unit is operating including and not limited to startup, shutdown, or malfunction.

(b) Units that do not use wet scrubbers must maintain opacity to less than or equal to the percent opacity (three 1-hour blocks consisting of ten 6-minute average opacity values) specified in table 2 of this subpart, as applicable.

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§60.2675 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 3 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.

(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 on the date that the performance test report is submitted to the EPA's Central Data Exchange or postmarked, per the requirements of §60.2795(b).

(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 × 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, lowest 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 of 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 ten percent opacity (1-hour block average).

(i) If you use a PM CPMS to demonstrate 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) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record all hourly average output values (milliamps, or the digital signal equivalent) from the PM CPMS for the periods corresponding to the test runs (*e.g.,* three 1-hour average PM CPMS output values for three 1-hour test runs):

(i) Your PM CPMS must provide a4-20 milliamp output, or the digital signal equivalent, and the establishment of its relationship to manual reference method measurements must be determined in units of milliamps or digital bits;

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

(iii) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp output values, or their digital equivalent, from the PM CPMS for the periods corresponding to the compliance test runs (*e.g.,* average all your PM CPMS output values for three corresponding 2-hour Method 5I test runs).

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

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

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

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

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

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

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

$$\overline{x} = \frac{1}{n}\sum_{i=1}^{n} X_1, \overline{y} = \frac{1}{n}\sum_{i=1}^{n} Y_1$$

(Eq. 1)

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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:

$$R = \left(\frac{Y_1}{X_{1-z}}\right)$$

(Eq. 2)

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Where:

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

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

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

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

(iv) Determine your source specific 30-day rolling average operating limit using the mg/dscm per milliamp value, or per digital signal equivalent, 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:

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

(Eq. 3)

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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 digital equivalent, determined from paragraph (i)(2)(i) of this section, and

R = the relative mg/dscm per milliamp, or per 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:

$$O_h = \frac{1}{n}\sum_{i=1}^{n} X_1$$

(Eq. 4)

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Where:

X_1 = 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.

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§60.2680 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?

(a) 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 mass balances, to comply with the emission limitations under §60.2670, 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)(1) through (5) of this section:

(1) Identification of the specific parameters you propose to use as additional operating limits;

(2) 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;

(3) 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;

(4) 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

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

(b) [Reserved]

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Model Rule—Performance Testing

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§60.2690 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 §60.2740(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 tables 2 and 6 through 9 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:

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

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Where:

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

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

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

20.9 = oxygen concentration in air, percent; and

$\%O_2$ = oxygen concentration measured on a dry basis, percent.

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

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

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

(3) For each dioxin/furan (tetra- through octa-chlorinated) isomer measured in accordance with paragraph (g)(1) and (2) of this section, multiply the isomer concentration by its corresponding toxic equivalency factor specified in table 4 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 must be used to determine compliance with the fugitive ash emission limit in table 2 of this subpart or tables 6 through 9 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 §60.2710 and §60.2730.

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

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

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

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

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§60.2695 How are the performance test data used?

You use results of performance tests to demonstrate compliance with the emission limitations in table 2 of this subpart or tables 6 through 9 of this subpart.

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Model Rule—Initial Compliance Requirements

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§60.2700 How do I demonstrate initial compliance with the amended emission limitations and establish the operating limits?

(a) You must conduct a performance test, as required under §§60.2670 and 60.2690, to determine compliance with the emission limitations in table 2 of this subpart and tables 6 through 9 of this subpart, to establish compliance with any opacity operating limits in §60.2675, to establish the kiln-specific emission limit in §60.2710(y), as applicable, and to establish operating limits using the procedures in §60.2675 or §60.2680. The performance test must be conducted using the test methods listed in table 2 of this subpart and tables 6 through 9 of this subpart and the procedures in §60.2690. 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 §§60.2690 and 60.2670, 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.

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§60.2705 By what date must I conduct the initial performance test?

(a) The initial performance test must be conducted no later than 180 days after your final compliance date. Your final compliance date is specified in table 1 of this subpart.

(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 given 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 given solid waste within the 6 months preceding the reintroduction of that solid waste in the combustion chamber, you must conduct a performance test within 60 days from the date you reintroduce solid waste.

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§60.2706 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 final compliance date for meeting the amended emission limitations.

(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.

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Model Rule—Continuous Compliance Requirements

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§60.2710 How do I demonstrate continuous compliance with the amended 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 §60.2710(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;

(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 section 112 monitoring requirements or monitoring requirements under this subpart.

(b) You must conduct an annual performance test for the pollutants listed in table 2 of this subpart or tables 6 through 9 of this subpart and opacity for each CISWI as required under §60.2690. The annual performance test must be conducted using the test methods listed in table 2 of this subpart or tables 6 through 9 of this subpart and the procedures in §60.2690. Opacity must be measured using EPA Reference Method 9 at 40 CFR part 60. 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 §60.2675 or established under §60.2680 and as specified in §60.2735. Operation above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. Three-hour block average values are used to determine compliance (except for baghouse leak detection system alarms) unless a different averaging period is established under §60.2680 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 the operating limits specified in paragraph (a) of this section constitutes a deviation from your operating limits established under this subpart, except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits. Operating limits are confirmed or reestablished during performance tests.

(d) You must burn only the same types of waste and fuels used to establish subcategory applicability (for ERUs) and operating limits during the performance test.

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

(f) For energy recovery units, you must conduct an annual performance test for opacity using EPA Reference Method 9 at 40 CFR part 60 (except where particulate matter continuous monitoring system or CPMS are used) and the pollutants listed in table 7 of this subpart.

(g) For facilities using a CEMS to demonstrate compliance with the carbon monoxide emission limit, compliance with the carbon monoxide emission limit may be demonstrated by using the CEMS, as described in §60.2730(o).

(h) Coal and liquid/gas energy recovery units with annual average heat input rates greater than 250 MMBtu/hr may elect to demonstrate continuous compliance with the particulate matter emissions limit using a particulate matter CEMS according to the procedures in §60.2730(n) instead of the CPMS specified in §60.2710(i). 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 compliance using a particulate matter CEMS according to the procedures in §60.2730(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 but 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 §60.2730(m).

(j) For waste-burning kilns, you must conduct an annual performance test for the pollutants (except mercury and particulate matter, and hydrogen chloride if no acid gas wet scrubber or dry scrubber is used) listed in table 8 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 particulate matter using CPMS.

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

(i) You must use a measurement span value for any HCl CEMS of 0-10 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; and

(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; and

(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:

$$\frac{\text{Certified reference gas value}}{\text{Measured value of reference gas}} = \text{Measured stack gas} = \text{Normalized stack gas result} \qquad \text{(Eq. 6)}$$

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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 in accordance with performance specification 12A at 40 CFR part 60, appendix B or an integrated sorbent trap monitoring system in accordance with performance specification 12B at 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 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. 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 at 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 CMS 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 §60.2730(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), as applicable, 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 §60.2730 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, 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 CEMS must be 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of 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 reestablished 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, 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 3 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 an 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 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 an integrated sorbent trap monitoring system 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 system or 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; 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 an oxygen analyzer system as defined in §60.2875 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 §60.2675;

(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 (l) 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 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 §60.2675.

(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 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:

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

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Where:

C_{ks} = Kiln stack concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O_2.)

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

C_{ab} = Alkali bypass concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O_2.)

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

C_{cm} = In-line coal mill concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O_2.)

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.

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

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§60.2715 By what date must I conduct the annual performance test?

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

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§60.2716 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 §60.2706.

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§60.2720 May I conduct performance testing less often?

(a) You must conduct annual performance tests according to the schedule specified in §60.2715, 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 §60.2725. 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 §60.2795(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 §60.2875; and

(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, carbon monoxide, nitrogen oxides, sulfur dioxide, cadmium, lead, and dioxins/furans, the emission level equal to 75 percent of the applicable emission limit in table 2 or tables 6 through 9 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 observation 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 (a)(3)(ii) of this section, as applicable, you must conduct annual performance tests for the pollutant according to the schedule specified in paragraph (a) of this section until you qualify for less frequent testing for the pollutant as specified in paragraph (a)(3) of this section.

(b) [Reserved]

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§60.2725 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.

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Model Rule—Monitoring

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§60.2730 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 §60.2670, 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 3 of this subpart. These devices (or methods) must measure and record the values for these operating parameters at the frequencies indicated in table 3 of this subpart at all times except as specified in §60.2735(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 emission 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 §60.2670, 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 §60.2680.

(d) If you use activated carbon injection to comply with the emission limitations in this subpart, you must measure the minimum 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 §60.2690, 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 §60.2710(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, monitoring the minimum scrubber liquor pH, and monitoring minimum injection rate.

(h) To demonstrate continuous compliance with the particulate matter emissions limit, a facility may substitute use of either a particulate matter CEMS or a particulate matter CPMS for conducting the particulate matter annual performance test. For units equipped with a particulate matter CEMS, you are not required to use other CMS monitoring for PM compliance (*e.g.,* bag leak detectors, ESP secondary power, PM scrubber pressure). A facility may also substitute use of a particulate matter CEMS for conducting the PM initial performance test.

(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 test. You must record the output of the system and analyze the sample according to EPA Method 23 at 40 CFR part 60, appendix A-7. 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 and 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 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 monitoringsystem 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. 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. Waste-burning kilns must install, calibrate, maintain, and operate a mercury CEMS or an integrated sorbent trap monitoring system as specified in §60.2710(j).

(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 xides 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 §60.2710(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 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 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 §60.2710(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 §60.2670. Energy recovery units that use a particulate matter CEMS to demonstrate initial and continuing compliance according to the procedures in §60.2730(n) are not required to install a continuous opacity monitoring system and must perform the annual performance tests for opacity consistent with §60.2710(f):

(1) Install, operate and maintain each continuous opacity monitoring system according to performance specification 1 at 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 performance specification 1 at 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;

(2) The initial performance evaluation must be completed no later than 180 days after the final compliance date for meeting the amended emission limitations, as specified under §60.2690 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 at 40 CFR part 60, appendix A-3 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 §60.2710(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 of this part;

(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 of the part from the 1-hour arithmetic average of the CEMS outlet data.

(6) At a minimum, valid continuous monitoring system hourly averages must be obtained as specified §60.2735;

(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 (or carbon dioxide)(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, a facility may substitute use of a CEMS for the carbon monoxide initial and annual performance test to demonstrate compliance with the carbon monoxide emissions limits:

(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 §60.2710(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 heat input capacity of 100 MMBtu/hr or greater that do not use a carbon monoxide CEMS, you must install, operate and maintain the continuous oxygen monitoring system as defined in §60.2875 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 §60.2675;

(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. 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 §60.2710(l) and (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 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 §60.2675.

(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 final compliance date of this rule and during each quarter of source operation.

(3) Conduct accuracy checks in accordance with the procedures outlined in your site-specific monitoring plan under §60.2710(l).

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§60.2735 Is there a minimum amount of monitoring data I must obtain?

For each continuous monitoring system required or optionally allowed under §60.2730, you must monitor and 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 §60.2770(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 the monitoring system malfunctions, 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.

(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.

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Model Rule—Recordkeeping and Reporting

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§60.2740 What records must I keep?

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

(a) Calendar date of each record;

(b) Records of the data described in paragraphs (b)(1) through (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 §60.2675(d) through (g) or §60.2680, 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; and

(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 §60.2675(c).

(7) If you monitor clinker production in accordance with §60.2730(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 measruing 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 3 of this subpart or a deviation from other operating limits established under §60.2675(d) through (g) or §60.2680 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) Records showing the names of CISWI operators who have completed review of the information in §60.2660(a) as required by §60.2660(b), including the date of the initial review and all subsequent annual reviews.

(h) Records showing the names of the CISWI operators who have completed the operator training requirements under §60.2635, met the criteria for qualification under §60.2645, and maintained or renewed their qualification under §60.2650 or §60.2655. 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.

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

(j) Records of calibration of any monitoring devices as required under §60.2730.

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

(l) The information listed in §60.2660(a).

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

(n) Maintain records of the annual air pollution control device inspections that are required for each CISWI subject to the emissions limits in table 2 of this subpart or tables 6 through 9 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.

(o) 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.

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

(q) If you choose to stack test less frequently than annually, consistent with §60.2720(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.

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

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

(t) 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.

(u) 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), 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 in §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), 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).

(v) 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.

(w) 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.

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§60.2745 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.

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§60.2750 What reports must I submit?

See table 5 of this subpart for a summary of the reporting requirements.

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§60.2755 When must I submit my waste management plan?

You must submit the waste management plan no later than the date specified in table 1 of this subpart for submittal of the final control plan.

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§60.2760 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 §60.2700, as applicable;

(b) The values for the site-specific operating limits established in §60.2675 or §60.2680; 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 §60.2730(b).

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§60.2765 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 §60.2760. 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.)

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§60.2770 What information must I include in my annual report?

The annual report required under §60.2765 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 §§60.2775, 60.2780, and 60.2785:

(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 §60.2675 or §60.2680;

(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 §60.2740(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 §60.2795(b)(1), the performance test report no later than the date that you submit the annual report;

(i) If you met the requirements of §60.2720(a) or (b), and did not conduct a performance test during the reporting period, you must state that you met the requirements of §60.2720(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 CMS 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 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.

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§60.2775 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 a 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).

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§60.2780 What must I include in the deviation report?

In each report required under §60.2775, for any pollutant or parameter that deviated from the emission limitations or operating limits specified in this subpart, include the four 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; and

(2) Bypass events and your corrective actions.

(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 §60.2795(b)(1), the performance test report no later than the date that you submit the deviation report.

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§60.2785 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 §60.2665(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.

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§60.2790 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 §60.2710(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.

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§60.2795 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 CEDRI 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*). When 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)(1) or (2) 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.

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§60.2800 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.

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Model Rule—Title V Operating Permits

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§60.2805 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 Clean Air Act sections 129(e) and Title V.

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Model Rule—Air Curtain Incinerators (ACIs)

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§60.2810 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 §60.2805 and under “Air Curtain Incinerators” (§§60.2810 through 60.2870):

(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.

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§60.2815 What are my requirements for meeting increments of progress and achieving final compliance?

If you plan to achieve compliance more than 1 year following the effective date of state plan approval, you must meet the two increments of progress specified in paragraphs (a) and (b) of this section:

(a) Submit a final control plan; and

(b) Achieve final compliance.

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§60.2820 When must I complete each increment of progress?

Table 1 of this subpart specifies compliance dates for each of the increments of progress.

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§60.2825 What must I include in the notifications of achievement of increments of progress?

Your notification of achievement of increments of progress must include the three items described in paragraphs (a) through (c) of this section:

(a) Notification that the increment of progress has been achieved;

(b) Any items required to be submitted with each increment of progress (see §60.2840); and

(c) Signature of the owner or operator of the incinerator.

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§60.2830 When must I submit the notifications of achievement of increments of progress?

Notifications for achieving increments of progress must be postmarked no later than 10 business days after the compliance date for the increment.

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§60.2835 What if I do not meet an increment of progress?

If you fail to meet an increment of progress, you must submit a notification to the Administrator postmarked within 10 business days after the date for that increment of progress in table 1 of this subpart. You must inform the Administrator that you did not meet the increment, and you must continue to submit reports each subsequent calendar month until the increment of progress is met.

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§60.2840 How do I comply with the increment of progress for submittal of a control plan?

For your control plan increment of progress, you must satisfy the two requirements specified in paragraphs (a) and (b) of this section:

(a) Submit the final control plan, including a description of any devices for air pollution control and any process changes that you will use to comply with the emission limitations and other requirements of this subpart; and

(b) Maintain an onsite copy of the final control plan.

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§60.2845 How do I comply with the increment of progress for achieving final compliance?

For the final compliance increment of progress, you must complete all process changes and retrofit construction of control devices, as specified in the final control plan, so that, if the affected incinerator is brought online, all necessary process changes and air pollution control devices would operate as designed.

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§60.2850 What must I do if I close my air curtain incinerator and then restart it?

(a) If you close your incinerator but will reopen it prior to the final compliance date in your state plan, you must meet the increments of progress specified in §60.2815.

(b) If you close your incinerator but will restart it after your final compliance date, you must complete emission control retrofits and meet the emission limitations on the date your incinerator restarts operation.

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§60.2855 What must I do if I plan to permanently close my air curtain incinerator and not restart it?

If you plan to close your incinerator rather than comply with the state plan, submit a closure notification, including the date of closure, to the Administrator by the date your final control plan is due.

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§60.2860 What are the emission limitations for air curtain incinerators?

After the date the initial stack test is required or completed (whichever is earlier), you must meet the limitations 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.

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§60.2865 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 no later than 180 days after your final compliance date.

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

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§60.2870 What are the recordkeeping and reporting requirements for air curtain incinerators?

(a) 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.

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

(c) Submit an initial report no later than 60 days following the initial opacity test that includes the information specified in paragraphs (c)(1) and (2) of this section:

(1) The types of materials you plan to combust in your ACI; and

(2) 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.

(d) 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 and keep a copy onsite for a period of 5 years.

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Model Rule—Definitions

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§60.2875 What definitions must I know?

Terms used but not defined in this subpart are defined in the Clean Air Act and subparts A and B 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.

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

Air curtain incinerator (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 operation of a CISWI startup from a cold start until waste is fed into 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 §60.2740(u), 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 octachlorinated dibenzo-p-dioxins and dibenzofurans.

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

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

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

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

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

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

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

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

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

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

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

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

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 by-product 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 12:00 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/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 air curtain incinerators comply with opacity limitations to be established by the Administrator by rule.

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

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

Startup period means, 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 the 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; or

(3) Clean lumber.

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Table 1 to Subpart DDDD of Part 60—Model Rule—Increments of Progress and Compliance Schedules

Comply with these increments of progress	By these dates[1]
Increment 1-Submit final control plan	(Dates to be specified in state plan).
Increment 2-Final compliance	(Dates to be specified in state plan).[2]

[1]Site-specific schedules can be used at the discretion of the state.

[2]The date can be no later than 3 years after the effective date of state plan approval or December 1, 2005 for CISWIs that commenced construction on or before November 30, 1999. The date can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018, for CISWIs that commenced construction on or before June 4, 2010.

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Table 2 to Subpart DDDD of Part 60—Model Rule—Emission Limitations That Apply to Incinerators Before [Date To Be Specified in State Plan][1]

For the air pollutant	You must meet this emission limitation[2]	Using this averaging time[3]	And determining compliance using this method[3]
Cadmium	0.004 milligrams per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Performance test (Method 29 of appendix A of this part).
Carbon monoxide	157 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Performance test (Method 10, 10A, or 10B, of appendix A of this part).
Dioxins/furans (toxic equivalency basis)	0.41 nanograms per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Performance test (Method 23 of appendix A of this part).
Hydrogen chloride	62 parts per million by dry volume	3-run average (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 or 30B at 40 CFR part 60, appendix A-8) or ASTM D6784-02 (Reapproved 2008).[4]
Opacity	10 percent	Three 1-hour blocks consisting of ten 6-minute average opacity values	Performance test (Method 9 at 40 CFR part 60, appendix A-4).
Nitrogen oxides	388 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Performance test (Methods 7 or 7E at 40 CFR part 60, appendix A-4).
Particulate matter	70 milligrams per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Performance test (Method 5 or 29 of appendix A of this part).
Sulfur dioxide	20 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Performance test (Method 6 or 6c of appendix A of this part).

[1]Applies only to incinerators subject to the CISWI standards through a state plan or the Federal plan prior to June 4, 2010. The date specified in the state plan can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018.

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

[3]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 §§60.2710 and 60.2730. As prescribed in §60.2710(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.

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

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Table 3 to Subpart DDDD of Part 60—Model Rule—Operating Limits for Wet Scrubbers

For these operating parameters	You must establish these operating limits	And monitor 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.

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Table 4 to Subpart DDDD of Part 60—Model Rule—Toxic Equivalency Factors

Dioxin/furan isomer	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

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Table 5 to Subpart DDDD of Part 60—Model Rule—Summary of Reporting Requirements[1]

Report	Due date	Contents	Reference
Waste Management Plan	No later than the date specified in table 1 for submittal of the final control plan	• Waste management plan	§60.2755.
Initial Test Report	No later than 60 days following the initial performance test	• Complete test report for the initial performance test • The values for the site-specific operating limits • Installation of bag leak detection systems for fabric filters	§60.2760.
Annual report	No later than 12 months following the submission of the initial test report. Subsequent reports are to be submitted no more than 12 months following the previous report	• Name and address • Statement and signature by responsible official • Date of report • Values for the operating limits • 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 • If a performance test was conducted during the reporting period, the results of the test • If a performance test was not conducted during the reporting period, a statement that the requirements of §60.2720(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 §60.2720(a), the date of the last 2 performance tests, a comparison of the emission level you achieved in the last 2 performance tests to the 75 percent emission limit threshold required in §60.2720(a) and a statement as to whether there have been any operational changes since the last performance test that could increase emissions • Any malfunction, deviation, or continuous monitoring system out of control periods information as specified in §60.2770(k) through (o) • Fuel input information for energy recovery unit subcategory verification as specified in §60.2770(p)	§§60.2765 and 60.2770.
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	• 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 any test reports • Dates, times and causes for monitor downtime incidents	§60.2775 and 60.2780.
Qualified Operator Deviation Notification	Within 10 days of deviation	• Statement of cause of deviation • Description of efforts to have an accessible qualified operator • The date a qualified operator will be accessible	§60.2785(a)(1).
Qualified Operator Deviation Status Report	Every 4 weeks following deviation	• Description of efforts to have an accessible qualified operator • The date a qualified operator will be accessible • Request for approval to continue operation	§60.2785(a)(2).
Qualified Operator Deviation Notification of Resumed Operation	Prior to resuming operation	• Notification that you are resuming operation	§60.2785(b).

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

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Table 6 to Subpart DDDD of Part 60—Model Rule—Emission Limitations That Apply to Incinerators on and After [Date To Be Specified in State Plan][1]

For the air pollutant	You must meet this emission limitation[2]	Using this averaging time[3]	And determining compliance using this method[3]
Cadmium	0.0026 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 2 dry standard cubic meters)	Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish.
Carbon monoxide	17 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)	4.6 nanograms per dry standard cubic meter	3-run average (collect a minimum volume of 2 dry standard cubic meters)	Performance test (Method 23 at 40 CFR part 60, appendix A-7).
Dioxins/furans (toxic equivalency basis)	0.13 nanograms per dry standard cubic meter	3-run average (collect a minimum volume of 2 dry standard cubic meters)	Performance test (Method 23 at 40 CFR part 60, appendix A-7).
Hydrogen chloride	29 parts per million dry volume	3-run average (For Method 26, collect a minimum volume of 60 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meter per run)	Performance test (Method 26 or 26A at 40 CFR part 60, appendix A-8).
Lead	0.015 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 2 dry standard cubic meters)	Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish.
Mercury	0.0048 milligrams per dry standard cubic meter	3-run average (For Method 29 an ASTM D6784-02 (Reapproved 2008),[4] collect a minimum volume of 2 dry standard cubic meters per run. For Method 30B, collect a minimum sample 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).[4]
Nitrogen oxides	53 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	34 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 1 dry standard cubic meter)	Performance test (Method 5 or 29 at 40 CFR part 60, appendix A-3 or appendix A-8).
Sulfur dioxide	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).
Fugitive ash	Visible emissions for no more than 5% of the hourly observation period	Three 1-hour observation periods	Visible emission test (Method 22 at 40 CFR part 60, appendix A-7).

[1]The date specified in the state plan can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018.

[2]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.

[3]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 §§60.2710 and 60.2730. As prescribed in §60.2710(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.

[4]Incorporated by reference, see §60.17.

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Table 7 to Subpart DDDD of Part 60—Model Rule—Emission Limitations That Apply to Energy Recovery Units After May 20, 2011 [Date To Be Specified in State Plan][1]

For the air pollutant	You must meet this emission limitation[2]		Using this averaging time[3]	And determining compliance using this method[3]
	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 2 dry standard cubic meters)	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-260 parts per million dry volume Coal-95 parts	3-run average (1 hour minimum sample time per run)	Performance test (Method 10 at 40 CFR part 60, appendix A-4).

		per million dry volume		
Dioxins/furans (total mass basis)	2.9 nanograms per dry standard cubic meter	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 meter)	Performance test (Method 23 at 40 CFR part 60, appendix A-7).
Dioxins/furans (toxic equivalency basis)	0.32 nanograms per dry standard cubic meter	Biomass-0.12 nanograms per dry standard cubic meter Coal-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).
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 of 120 liters; for Method 26A, collect a minimum volume of 1 dry standard cubic meter)	Performance test (Method 26 or 26A at 40 CFR part 60, appendix A-8).
Lead	0.096 milligrams per dry standard cubic meter	Biomass-0.014 milligrams per dry standard cubic meter Coal-0.057 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 2 dry standard cubic meters)	Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish.
Mercury	0.0024 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 (For Method 29 and ASTM D6784-02 (Reapproved 2008),[4] collect a minimum volume of 2 dry standard cubic meters per run. For Method 30B, collect a minimum sample 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).[4]
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-11 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)	Performance test (Method 5 or 29 at 40 CFR part 60, appendix A-3 or appendix A-8) if the unit has an annual average heat input rate less than or equal to 250 MMBtu/hr; or PM CPMS (as specified in §60.2710(x)) if the unit has an annual average heat input rate greater than 250 MMBtu/hr.
Sulfur dioxide	720 parts per million dry volume	Biomass-7.3 parts per million dry volume Coal-850 parts per million dry volume	3-run average (1 hour minimum sample time per run)	Performance test (Method 6 or 6c at 40 CFR part 60, appendix A-4).
Fugitive ash	Visible emissions for no more than 5 percent of the hourly observation period	Visible emissions for no more than 5 percent of the hourly observation period	Three 1-hour observation periods	Visible emission test (Method 22 at 40 CFR part 60, appendix A-7).

[1]The date specified in the state plan can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018.

[2]All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions. For dioxins/furans, you must meet either the total mass basis limit or the toxic equivalency basis limit.

[3]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 §§60.2710 and 60.2730. As prescribed in §60.2710(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.

[4]Incorporated by reference, see §60.17.

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Table 8 to Subpart DDDD of Part 60—Model Rule—Emission Limitations That Apply to Waste-Burning Kilns After May 20, 2011 [Date To Be Specified in State Plan][1]

For the air pollutant	You must meet this emission limitation[2]	Using this averaging time[3]	And determining compliance using this method[34]
Cadmium	0.0014 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 2 dry standard cubic meters)	Performance test (Method 29 at 40 CFR part 60, appendix A-8).
Carbon monoxide	110 (long kilns)/790 (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)	1.3 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)	0.075 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).
Hydrogen chloride	3.0 parts per million dry volume	3-run average (collect a minimum volume of 1 dry standard cubic meter), 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 of this part). If a wet scrubber or dry scrubber is not used, HCl CEMS as specified in §60.2710(j).
Lead	0.014 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 2 dry standard cubic meters)	Performance test (Method 29 at 40 CFR part 60, appendix A-8).
Mercury	0.011 milligrams per dry standard cubic meter Or 58 pounds/million tons of clinker	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 §60.2710(j).
Nitrogen oxides	630 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	13.5 milligrams per dry standard cubic meter	30-day rolling average	PM CPMS (as specified in §60.2710(x)).
Sulfur dioxide	600 parts per million dry volume	3-run average (for Method 6, collect a minimum of 20 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]The date specified in the state plan can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018.

[2]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.

[3]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 §§60.2710 and 60.2730. As prescribed in §60.2710(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.

[4]Alkali bypass and in-line coal mill stacks are subject to performance testing only, as specified in 60.2710(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.

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Table 9 to Subpart DDDD of Part 60—Model Rule—Emission Limitations That Apply to Small, Remote Incinerators After May 20, 2011 [Date To Be Specified in State Plan][1]

For the air pollutant	You must meet this emission limitation[2]	Using this averaging time[3]	And determining compliance using this method[3]
Cadmium	0.95 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	64 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)	4,400 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	180 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).

equivalency basis)			
Fugitive ash	Visible emissions for no more than 5 percent of the hourly observation period	Three 1-hour observation periods	Visible emissions test (Method 22 at 40 CFR part 60, appendix A-7).
Hydrogen chloride	300 parts per million 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	2.1 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	0.0053 milligrams per dry standard cubic meter	3-run average (For Method 29 and ASTM D6784-02 (Reapproved 2008),[3] collect a minimum volume of 2 dry standard cubic meters per run. For Method 30B, collect a minimum sample 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).[4]
Nitrogen oxides	190 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	150 parts per million dry volume	3-run average (for Method 6, collect a minimum of 20 liters per run; 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]The date specified in the state plan can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018.

[2]All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions. For dioxins/furans, you must meet either the total mass basis limit or the toxic equivalency basis limit.

[3]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 §§60.2710 and 60.2730. As prescribed in §60.2710(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.

[4]Incorporated by reference, see §60.17.

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Need assistance?

ELECTRONIC CODE OF FEDERAL REGULATIONS

e-CFR data is current as of June 8, 2020

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

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

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Source: 84 FR 15853, Apr. 16, 2019, unless otherwise noted.

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Introduction

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§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).

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§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.

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Applicability

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§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.

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§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.

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§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).

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§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.

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§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.

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§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.

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Preconstruction Siting Analysis

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§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.

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§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.

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Waste Management Plan

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§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.

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§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

must submit a waste management plan prior to the commencement of modification or reconstruction.

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§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.

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Operator Training and Qualification

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§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.

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§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.

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§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).

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§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.

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§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).

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§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.

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§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.

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Emission Limitations and Operating Limits

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§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).

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§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 × 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 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 milliamps;

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

(iii) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp output values, or their digital equivalent, from the PM CPMS for the periods corresponding to the compliance test runs (*e.g.,* average all your PM CPMS output values for three corresponding 2-hour Method 5I test runs).

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

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

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

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

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

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

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

$$\overline{x} = \frac{1}{n}\sum_{i=1}^{n} X_1, \overline{y} = \frac{1}{n}\sum_{i=1}^{n} Y_1$$

(Eq. 1)

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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:

$$R = \left(\frac{Y_1}{X_{1-z}}\right)$$

(Eq. 2)

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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

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:

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

(Eq. 3)

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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 secction, 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:

$$O_n = \frac{1}{n}\sum_{i=1}^{n} X_1$$

(Eq. 4)

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Where:

X_1 = 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.

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§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.

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Performance Testing

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§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:

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

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Where:

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

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

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

20.9 = oxygen concentration in air, percent; and

$\%O_2$ = oxygen concentration measured on a dry basis, percent.

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

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

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

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

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

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

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

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

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

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

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

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§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.

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Initial Compliance Requirements

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§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 60.2105to 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.

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§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.

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§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.

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Continuous Compliance Requirements

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§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 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 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

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 compliance with particulate matter using CPMS.

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

(i) You must use a measurement span value for any HCl CEMS of 0-10 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:

$$\frac{Certified\ reference\ gas\ value}{Measured\ value\ of\ reference\ gas} x\ Measured\ stack\ gas\ result = Normalized\ stack\ gas\ result \quad \text{(Eq. 6)}$$

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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 integerated 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. Integerated 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);

(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 continuouscompliance 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 (l) 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:

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

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Where:

C_{ks} = Kiln stack concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O_2.)

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

C_{ab} = Alkali bypass concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O_2.)

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

C_{cm} = In-line coal mill concentration (ppmvd, mg/dscm, ng/dscm, depending on pollutant. Each corrected to 7% O_2.)

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

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

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

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

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

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§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.

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§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]

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§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.

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Monitoring

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§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

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).

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§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.

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Recordkeeping and Reporting

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§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 measruing 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.

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§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.

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§60.2185 What reports must I submit?

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

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§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.

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§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.

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§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).

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§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.)

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

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

(a) Company name and address;

(b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report;

(c) Date of report and beginning and ending dates of the reporting period;

(d) The values for the operating limits established pursuant to §60.2110 or §60.2115;

(e) If no deviation from any emission limitation or operating limit that applies to you has been reported, a statement that there was no deviation from the emission limitations or operating limits during the reporting period;

(f) The highest recorded 3-hour average and the lowest recorded 3-hour average (30-day average for energy recovery units), as applicable, for each operating parameter recorded for the calendar year being reported;

(g) Information recorded under §60.2175(b)(6) and (c) through (e) for the calendar year being reported;

(h) For each performance test conducted during the reporting period, if any performance test is conducted, the process unit(s) tested, the pollutant(s) tested and the date that such performance test was conducted. Submit, following the procedure specified in §60.2235(b)(1), the performance test report no later than the date that you submit the annual report;

(i) If you met the requirements of §60.2155(a) or (b), and did not conduct a performance test during the reporting period, you must state that you met the requirements of §60.2155(a) or (b), and, therefore, you were not required to conduct a performance test during the reporting period;

(j) Documentation of periods when all qualified CISWI operators were unavailable for more than 8 hours, but less than 2 weeks;

(k) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and that caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §60.11(d), including actions taken to correct a malfunction;

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

(1) The total operating time of the CISWI at which the deviation occurred during the reporting period; and

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

(m) If there were periods during which the continuous monitoring system, including the CEMS, was out of control as specified in paragraph (o) of this section, the annual report must contain the following information for each deviation from an emission or operating limitation occurring for a CISWI for which you are using a continuous monitoring system to comply with the emission and operating limitations in this subpart:

(1) The date and time that each malfunction started and stopped;

(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks;

(3) The date, time, and duration that each continuous monitoring system was out-of-control, including start and end dates and hours and descriptions of corrective actions taken;

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period;

(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period;

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes;

(7) A summary of the total duration of continuous monitoring system downtime during the reporting period, and the total duration of continuous monitoring system downtime as a percent of the total operating time of the CISWI at which the continuous monitoring system downtime occurred during that reporting period;

(8) An identification of each parameter and pollutant that was monitored at the CISWI;

(9) A brief description of the CISWI;

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

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

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

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

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

(1) The zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard;

(2) The continuous monitoring system fails a performance test audit (*e.g.,* cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; and

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

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§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).

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§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.

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§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.

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§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.

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§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.

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§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.

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Title V Operating Permits

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§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.

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Air Curtain Incinerators (ACIs)

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§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.

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§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.

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§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.

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§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.

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Definitions

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§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

section 3(17)(D) of the Federal Power Act (16 U.S.C. 796(17)(D)), 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 incineratorsprovided 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.

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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	Using this averaging time[2]	And determining compliance

pollutant	this emission limitation[1]		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).
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.

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

For these operating parameters	You must establish these operating limits	And monitoring using these minimum frequencies		
		Data measurement	Data recording	Averaging time
Charge rate	Maximum charge rate	Continuous	Every hour	Daily (batch units) 3-hour rolling (continuous and intermittent units).[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.

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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

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Table 4 to Subpart CCCC of Part 60—Summary of Reporting Requirements[1]

Report	Due date	Contents	Reference
Preconstruction report	Prior to commencing construction	• Statement of intent to construct	§60.2190.
		• Anticipated date of commencement of construction • Documentation for siting requirements • Waste management plan • Anticipated date of initial startup	
Startup notification	Prior to initial startup	• Type of waste to be burned	§60.2195.
		• Maximum design waste burning capacity • Anticipated maximum charge rate • If applicable, the petition for site-specific operating limits	
Initial test report	No later than 60 days following the initial performance test	• Complete test report for the initial performance test • The values for the site-specific operating limits	§60.2200.
		• 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	• Name and address • Statement and signature by responsible official • Date of report • Values for the operating limits	§§60.2205 and 60.2210.
		• Highest recorded 3-hour average and the lowest 3-hour average, as applicable, (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 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 • 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	• 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.
		• Dates, times and causes for monitor downtime incidents	
Qualified operator deviation notification	Within 10 days of deviation	• Statement of cause of deviation • Description of efforts to have an accessible qualified operator	§60.2225(a)(1).
		• The date a qualified operator will be accessible	
Qualified operator deviation status report	Every 4 weeks following deviation	• Description of efforts to have an accessible qualified operator	§60.2225(a)(2).
		• The date a qualified operator will be accessible • Request for approval to continue operation	
Qualified operator deviation notification of resumed operation	Prior to resuming operation	• Notification that you are resuming operation	§60.2225(b).

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

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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	0.13 nanograms per	3-run average (collect a minimum volume of 4	Performance test (Method 23 at

(toxic equivalency basis)	dry standard cubic meter	dry standard cubic meter per run)	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).
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.

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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	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.

		standard cubic meter		
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 standard cubic meters per run)	Performance test (Method 26 or 26A at 40 CFR part 60, appendix A-8).
Lead	0.096 milligrams per dry standard cubic meter	Biomass-0.014 milligrams per dry standard cubic meter Coal-0.057 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 4 dry standard cubic meters per run)	Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish.
Mercury	0.00056 milligrams per dry standard cubic meter	Biomass-0.0022 milligrams per dry standard cubic meter Coal-0.013 milligrams per dry	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]

		standard cubic meter		
Nitrogen oxides	76 parts per million dry volume	Biomass-290 parts per million dry volume Coal-460 parts per million dry volume	3-run average (for Method 7E, 1 hour minimum sample time per run)	Performance test (Method 7 or 7E at 40 CFR part 60, appendix A-4).
Particulate matter (filterable)	110 milligrams per dry standard cubic meter	Biomass-5.1 milligrams per dry standard cubic meter Coal-130 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 1 dry standard cubic meter per run)	Performance test (Method 5 or 29 at 40 CFR part 60, appendix A-3 or appendix A-8) if the unit has an annual average heat input rate less than 250 MMBtu/hr; or PM CPMS (as specified in §60.2145(x)) if the unit has an annual average heat input rate equal to or greater than 250 MMBtu/hr.
Sulfur dioxide	720 parts per million dry volume	Biomass-7.3 parts per million dry volume Coal-850 parts per million dry volume	3-run average (for Method 6, collect a minimum of 60 liters, for Method 6C,1 hour minimum sample time per run)	Performance test (Method 6 or 6C at 40 CFR part 60, appendix A-4).

[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 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.

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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[23]
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	0.51 nanograms per dry standard cubic	3-run average (collect a minimum volume of 4 dry	Performance test (Method 23 at 40 CFR part 60, appendix A-7).

basis)	meter	standard cubic meters per run)	
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).
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 Or 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	30-day rolling average	PM CPMS (as specified in §60.2145(x)).
Sulfur dioxide	28 parts per million dry volume	30-day rolling average	Sulfur dioxide CEMS (performance specification 2 of appendix B and procedure 1 of appendix F of this part).

[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 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.

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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 observation period	Three 1-hour observation periods	Visible emissions test (Method 22 at 40 CFR part 60, appendix A-7).
Hydrogen chloride	200 parts per million by dry volume	3-run average (For Method 26, collect a minimum volume of 60 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meter per run)	Performance test (Method 26 or 26A at 40 CFR part 60, appendix A-8).
Lead	2.0 milligrams per dry standard cubic meter	3-run average (collect a minimum volume of 1 dry standard cubic meters)	Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish.
Mercury	0.0035 milligrams per dry standard cubic meter	3-run average (For Method 29 and ASTM D6784-02 (Reapproved 2008)[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 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.

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