



**WEST VIRGINIA
SECRETARY OF STATE**

NATALIE E. TENNANT

ADMINISTRATIVE LAW DIVISION

eFILED

4/4/2014 3:35:22 PM

OFFICE OF
WEST VIRGINIA SECRETARY OF STATE

**FORM 6 -- NOTICE OF FINAL FILING AND ADOPTION OF A LEGISLATIVE RULE AUTHORIZED
BY THE WEST VIRGINIA LEGISLATURE**

AGENCY **Air Quality**

RULE TYPE **Legislative** AMENDMENT TO EXISTING RULE **Yes** TITLE-SERIES **45-18**

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

CITE AUTHORITY **22-5-4**

HOUSE OR SENATE BILL NUMBER

133

SECTION

64-3-1(e)

PASSED ON

03/08/2014

THIS RULE IS FILED WITH THE SECRETARY OF STATE. THIS RULE BECOMES EFFECTIVE ON THE
FOLLOWING DATE

Sunday, June 01, 2014

BY CHOOSING 'YES', I ATTEST THAT THE PREVIOUS STATEMENTS ARE TRUE AND CORRECT.

Yes

**Kristin A Boggs -- 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-Series: 45-18



Rule Id: 9076



Document: 25635

45CSR18

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 emission guidelines and compliance times pursuant to §§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/ 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 set forth in section 7;

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 set forth in section 9;

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. -- April 4, 2014.

1.4. Effective Date. -- June 1, 2014.

1.5. 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 in Tables 18-1A, 18-1B, 18-2A, 18-2B, 18-1C, 18-2C, 18-3C, 18-4C, 18-5C, 18-6C, 18-7C, 18-8C and 18-9C.

45CSR18

1.6. Neither compliance with the provisions of this rule nor the absence of specific language to cover particular situations constitutes approval or implies consent or condonement of any emission which 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. Incorporation by Reference. -- Federal Counterpart Regulation. The Secretary has determined that a federal counterpart rule 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, 2013.

1.8. Former Rules. -- This legislative rule amends 45CSR18 - "Control of Air Pollution from Combustion of Solid Waste" which was filed May 1, 2013, and became effective June 1, 2013.

§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. "CFR" means the Code of Federal Regulations published by the Office of the Federal Register, National Archives and Records Service, General Services Administration.

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

2.4. "Commercial and industrial solid waste incineration unit" or 'CISWI unit' means any distinct operating unit of any commercial or industrial facility that combusts, or has combusted in the preceding 6 months, any solid waste as that term is defined in 40 CFR Part 241. If the operating unit burns materials other than traditional fuels as defined in 40 CFR §241.2 that have been discarded, and you do 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.

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

2.6. "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. Municipal waste combustors do not include pyrolysis/ combustion units located at a plastics/

rubber recycling unit as specified in 40 CFR §60.50b(m). Municipal waste combustors do not include cement kilns firing municipal solid waste as specified in 40 CFR §60.50b(p). Municipal waste combustors do not include internal combustion engines, gas turbines, or other combustion devices that combust landfill gases collected by landfill gas collection systems.

2.6.b. The boundaries of a municipal waste combustor are defined as follows. 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. 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. 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. The combustor water system, which starts at the feed water pump and ends at the piping exiting the steam drum or superheater.

2.7. “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. 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. 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.

2.8. “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.

2.9. “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.

2.10. “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.

2.11. “You”, as used in sections 8 and 9 or 40 CFR Part 60 Subparts CCCC and DDDD, means the owner or operator of a CISWI unit.

2.12. 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 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 these standards and contained in these subparts, effective June 1, 2013.

§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 which 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 shall be subject to the requirements for new LMWC units set forth in section 4. 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 subsection 5.2 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 which 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 shall be subject to the requirements for new SMWC units set forth in section 5. 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/ Infectious Waste Incinerators.

6.1. Requirements for New HMIWI Units. -- The owner or operator of a new HMIWI unit under subsection 6.2 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 which 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 shall be subject to the requirements for new HMIWI units set forth in 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 and 40 CFR Part 60 Subpart Ce do not qualify as a reconstruction or modification under section 6 and 40 CFR Part 60 Subpart Ec.

§45-18-7. Requirements for Existing Hospital/ Medical/ Infectious Waste Incinerators.

7.1. **Requirements for Existing HMIWI Units.** -- The owner or operator of an existing HMIWI unit under subsection 7.2 shall comply with the applicable emission guidelines, compliance times, requirements and provisions of 40 CFR Part 60 Subpart Ce set forth in section 7 and Tables 18-1A, 18-1B, 18-2A and 18-2B, 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 which 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 shall be subject to the requirements for existing HMIWI units set forth in section 7.

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.

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 Administrator 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 Administrator 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. Any combustor required to have a permit under Section 3005 of the Solid Waste Disposal Act is not subject to this section.

7.2.e. 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) is not subject to this section.

7.2.f. Any pyrolysis unit is not subject to this section.

7.2.g. Cement kilns firing hospital waste and/or medical/ infectious waste are not subject to this section.

7.2.h. 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.i. 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.j The requirements of 40 CFR §§62.12150-12152, as amended and approved on August 3, 2009, and the related provisions of 40 CFR Part 60, Subpart Ce as promulgated on September 15, 1997, shall apply to the designated facilities under paragraph 7.2.a.1 until one year after the effective date of U.S. EPA's approval of the 111(d)/129 State Plan revision for HMIWI units. Upon one year after the effective date of U.S. EPA's approval of the 111(d)/129 State Plan revision for HMIWI units, designated facilities under paragraph 7.2.a.1 are no longer subject to the requirements of 40 CFR Part 60, Subpart Ce as promulgated on September 15, 1997, but are subject to the requirements of 40 CFR Part 62, Subpart XX, as amended in accordance with the October 6, 2009 provisions of 40 CFR Part 60, Subpart Ce.

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 as promulgated on September 15, 1997, the requirements listed in Table 18-1A, 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 as amended on October 6, 2009, the requirements listed in Table 18-1B, 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 18-1B and Table 1A of 40 CFR Part 60, Subpart Ec, as amended October 6, 2009.

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 lb/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 as promulgated on September 15, 1997, the requirements listed in Table 18-2A; and

7.3.b.2. For a designated facility under paragraph 7.2.a.1 subject to the emissions guidelines as amended on October 6, 2009, the requirements listed in Table 18-2B.

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 guidelines as promulgated on September 15, 1997, 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 as amended on October 6, 2009 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, as revised October 6, 2009.

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, as revised October 6, 2009. The initial equipment inspection shall include the following:

45CSR18

7.6.a.1. Inspection of all burners, pilot assemblies, and pilot sensing devices for proper operation: 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 10 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, as revised October 6, 2009. 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 10 operating days following an air pollution control device inspection under subdivision 7.6.d, 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.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 lb/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), and 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 3-hour rolling averages (calculated each hour as the average of the previous 3 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 3-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:

45CSR18

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 which 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, valid monitoring data shall be obtained for 75 percent of the operating hours per day and for 90 percent 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 shall have been 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 shall currently be 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), and 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) shall have been 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:

45CSR18

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, and 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 10 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. Subsequent reports shall be sent 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 report shall be signed and certified 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 reports shall be signed and certified 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 report shall be signed by the facilities manager and 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 as promulgated on September 15, 1997, 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, 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.b.2. No later than July 28, 2001, services of an architectural and engineering firm regarding air pollution device(s) shall be obtained;

7.9.b.3. No later than January 28, 2002, design drawings of an air pollution device(s) shall be ordered;

7.9.b.4. No later than January 28, 2002, air pollution device(s) shall be ordered;

7.9.b.5. No later than July 28, 2002, site preparation for installation of the air pollution device(s) shall be initiated;

7.9.b.6. No later than April 28, 2002, initial startup of the air pollution device(s) shall be

conducted;

7.9.b.7. No later than April 28, 2002, initial compliance test(s) of the air pollution device(s) shall be conducted; 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 18-1A, or Table 18-2A for Small Rural Units, as applicable.

7.9.d. The owner or operator of an existing HMIWI unit will be notified in writing by the Secretary of his or her decision as to whether an extension shall be granted or denied. 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 has been 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 3 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 as promulgated on September 15, 1997, and on or before the date 3 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 as amended on October 6, 2009.

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 as promulgated on October 6, 2009, 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

45CSR18

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. 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) shall be obtained;

7.9.f.3. 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) shall be ordered;

7.9.f.4. 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) shall be ordered;

7.9.f.5. 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) shall be initiated;

7.9.f.6. 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) shall be conducted;

7.9.f.7. 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) shall be conducted; 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 9 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

45CSR18

7.9.g.3. Measurable and enforceable incremental steps of progress to be taken towards compliance with the emission limits contained in Table 18-1B, or Table 18-2B for Small Rural Units, as applicable.

7.9.h. The owner or operator of an existing HMIWI unit will be notified in writing by the Secretary of his or her decision as to whether an extension shall be granted or denied. 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, as amended on October 6, 2009, 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 which 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 shall be subject to the requirements for new CISWI units set forth in section 8:

8.2.a. A CISWI unit that commenced construction after May 20, 2011; or

8.2.b. A CISWI unit that commenced reconstruction or modification after September 21, 2011.

8.3. Physical or Operational Changes. -- Physical or operational changes to an incineration unit primarily to comply with the emission guidelines in section 9 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 18-1C, 18-2C, 18-3C, 18-4C, 18-5C, 18-6C, 18-7C, 18-8C and 18-9C, 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 which 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 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 as defined in subsection 2.4 and

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

9.2.b. Physical or Operational Changes.

9.2.b.1. If the owner or operator of a CISWI unit makes changes that meet the definition of modification or reconstruction on or after June 1, 2001, the CISWI unit becomes subject to 40 CFR Part 60, Subpart CCCC under section 8, and the requirements for existing CISWI units under section 9 no longer applies to that unit.

9.2.b.2. If the owner or operator of a CISWI unit makes physical or operational changes to an existing CISWI unit primarily to comply with section 9, the requirements for new CISWI units under section 8 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 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 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 section 9 except for the provisions set forth in subsection 9.13.

9.2.d.1. 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 40 CFR §60.2265 are not subject to section 9 if you meet the two requirements specified in subparagraphs 9.2.d.1.A and 9.2.d.1.B.

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

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. **Medical Waste Incineration Units.** -- Incineration units regulated under Subpart Ec of 40 CFR Part 60 (Standards of Performance for Hospital/Medical/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/Infectious Waste Incinerators).

9.2.d.5. **Small Power Production Facilities.** -- Units that meet the three requirements specified in subparagraphs 9.2.d.5.A through 9.2.d.5.C.

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

9.2.d.5.C. You submit documentation to the Administrator that the qualifying small power production facility is combusting homogenous waste.

9.2.d.5.D. You maintain the records specified in subdivision 9.11.v.

9.2.d.6. **Cogeneration Facilities.** -- Units that meet the three requirements specified in subparagraphs 9.2.d.6.A through 9.2.d.6.C.

9.2.d.6.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. 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. You submit documentation to the Administrator that the qualifying cogeneration facility is combusting homogenous waste.

9.2.d.6.D. You maintain the records specified in subdivision 9.11.w.

9.2.d.7. **Hazardous Waste Combustion Units.** -- Units for which you are required to get a permit under Section 3005 of the Solid Waste Disposal Act.

9.2.d.8. **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 subsection 9.13.

9.2.d.9.A. 100 percent wood waste.

9.2.d.9.B. 100 percent clean lumber.

9.2.d.9.C. 100 percent 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. Sewage Treatment Plants. -- Incineration units regulated under Subpart O of 40 CFR Part 60 (Standards of Performance for Sewage Treatment Plants).

9.2.d.14. 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).

9.2.d.15. 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).

9.3. Compliance Times and Increments of Progress.

9.3.a. For CISWI units in the incinerator subcategory 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 that commenced construction after November 30, 1999, but on or before June 4, 2010, 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. Owner and operators of existing CISWI units that have compliance schedules more than 1 year following the effective date of West Virginia §111(d)/129 plan approval shall be 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 18-1C.

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 10 business days after the compliance date for the increment.

9.3.h. If you fail to meet an increment of progress, you shall submit a notification to the Secretary postmarked within 10 business days after the date for that increment of progress in subdivision 9.3.e. You shall inform the Secretary that you did not meet the increment, and you shall continue to submit reports each subsequent calendar month until the increment of progress is met.

9.3.i. For your control plan increment of progress, you shall satisfy the following two requirements:

9.3.i.1. Submit the final control plan that includes the five items described 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 you 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.

9.3.i.1.E. If applicable, the petition for site-specific operating limits under subdivision ; 9.6.1 and

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

9.3.j. For the final compliance increment of progress, you 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 you close your CISWI unit but will restart it prior to the final compliance date set forth in subdivision 9.3.b, you shall meet the increments of progress set forth in subdivision 9.3.e.

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

9.3.m. If you plan to permanently close your CISWI unit rather than comply with section 9, submit

a closure notification, including the date of closure, to the Secretary by the date your 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. You shall submit a waste management plan to the Secretary no later than the date specified in Table 18-1C 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 can be at the facility within one hour. The trained and qualified CISWI unit operator may operate the CISWI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified CISWI unit operators are temporarily not accessible, you shall follow the procedures in subdivision 9.5.k.

9.5.b. Operator training and qualification shall be obtained by completing an incinerator operator training course that includes, at a minimum, the three elements described in paragraphs 9.5.b.1 through 9.5.b.3.

9.5.b.1. Training on the eleven subjects listed in subparagraphs 9.5.b.1.A through 9.5.b.1.K.

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.

45CSR18

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.

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

9.5.b.2. An examination designed and administered by the instructor.

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.

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

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.

9.5.d. You 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 completed and the operator successfully passes the examination required under paragraph 9.5.b.2.

9.5.f. To maintain qualification, you shall complete an annual review or refresher course covering, at a minimum, the five 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.

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

9.5.g. You shall renew a lapsed operator qualification by one of the two methods specified below:

9.5.g.1. For a lapse of less than 3 years, you shall complete a standard annual refresher course described in subdivision 9.5.f.

9.5.g.2. For a lapse of 3 years or more, you shall repeat the initial qualification requirements set forth in subdivision 9.5.d.

45CSR18

9.5.h. Documentation shall be available at the facility and readily accessible for all CISWI unit operators that addresses the ten topics described in paragraphs 9.5.h.1 through 9.5.h.10. You 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.

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

9.5.i. You 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 in subparagraphs 9.5.i.1.A through 9.5.i.1.C.

9.5.i.1.A. The final compliance date set forth in subdivision 9.3.b.

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

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

9.5.i.2. Subsequent annual reviews of the information listed in subdivision 9.5.h shall be conducted no later than 12 months following the previous review.

9.5.j. You shall also maintain the information specified in paragraphs 9.5.j.1 through 9.5.j.3.

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, and the dates of their qualification and all subsequent renewals of such qualifications.

9.5.j.3. For each qualified operator, the phone and/or pager 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), you shall meet one of the two following criteria, pending 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, you 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.

9.5.k.2. When all qualified operators are not accessible for two weeks or more, you shall take the two actions that are described below:

9.5.k.2.A. Notify the Secretary 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

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

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

9.5.k.2.B.2. You notify the Administrator that a qualified operator is accessible and that you are resuming operation.

9.6. Emission Limitations and Operating Limits.

9.6.a. You shall meet the emission limitations for each CISWI unit, including bypass stack or vent, specified in Table 18-2C or Tables 18-6C through 18-9C by the final compliance date set forth 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 1-hour blocks consisting of ten 6-minute average opacity values) specified in Table 18-2C, as

applicable.

9.6.c. If you use a wet scrubber(s) to comply with the emission limitations, you shall establish operating limits for up to four operating parameters (as specified in Table 18-3C) 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 different procedures in subparagraph 9.6.c.1.A or 9.6.c.1.B, as appropriate.

9.6.c.1.A. 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.

9.6.c.1.B. 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.

9.6.c.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.

9.6.c.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.

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

9.6.d. You 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). You 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.

9.6.e. If you use a fabric filter to comply with the emission limitations, you shall 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.

9.6.f. If you use an electrostatic precipitator to comply with the emission limitations, you 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 1-hour average secondary electric power measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

9.6.g. If you use activated carbon sorbent injection to comply with the emission limitations, you shall 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 40 CFR §60.2265, to determine the required injection rate (e.g., for 50 percent load, multiply the injection rate operating limit by 0.5).

9.6.h. If you use selective noncatalytic reduction to comply with the emission limitations, you shall measure the charge rate, the secondary chamber temperature (if applicable to your CISWI unit), and the reagent flow rate during the nitrogen oxides performance testing. The operating limits for the selective noncatalytic reduction are calculated as the 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.

9.6.i. If you use a dry scrubber to comply with the emission limitations, you 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 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 40 CFR §60.2265, to determine the required injection rate (e.g., for 50 percent load, multiply the injection rate operating limit by 0.5).

9.6.j. If you do not use a wet scrubber, electrostatic precipitator, or fabric filter to comply with the emission limitations, and if you do not determine compliance with your particulate matter emission limitation with a particulate matter CEMS, you shall maintain opacity to less than or equal to ten percent opacity (1-hour block average).

9.6.k. If you use a PM CPMS to demonstrate compliance, you shall establish your PM CPMS operating limit and determine compliance with it according to paragraphs 9.6.k.1 through 9.6.k.5.

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) 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).

9.6.k.1.A. Your PM CPMS shall provide a 4-20 milliamp output and the establishment of its relationship to manual reference method measurements shall be determined in units of milliamps.

9.6.k.1.B. Your PM CPMS operating range shall 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 instruments shall be capable of reading PM concentration from zero to a level equivalent to two times your allowable emission limit.

9.6.k.1.C. 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 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).

9.6.k.2. If the average of your three PM performance test runs are below 75% of your PM emission limit, you 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 your 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 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.

9.6.k.2.A.4. If none of the steps in subparagraphs 9.6.k.2.A through 9.6.k.2.D are possible, you shall use a zero output value provided by the manufacturer.

9.6.k.2.B. Determine your PM CPMS instrument average in milliamps, and the average of your corresponding three PM compliance test runs, using Equation 5.

$$\bar{x} = \frac{1}{n} \sum_{i=1}^n X_i, \quad \bar{y} = \frac{1}{n} \sum_{i=1}^n Y_i \quad \text{Equation 5}$$

Where:

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

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

n = the number of data points.

9.6.k.2.C. With your instrument zero expressed in milliamps, your three run average PM CPMS milliamp value, and your three run average PM concentration from your three compliance tests, determine a relationship of lb/Mmbtu per milliamp with Equation 6.

$$R = \frac{Y_1}{(X_1 - z)} \quad \text{Equation 6}$$

Where:

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

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

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

z = the milliamp equivalent of your instrument zero determined from subparagraph 9.6.k.2.A.

9.6.k.2.D. Determine your source specific 30-day rolling average operating limit using the mg/dscm per milliamp value from Equation 6 in Equation 7, below. This sets your operating limit at the PM CPMS output value corresponding to 75% of your emission limit.

$$O_l = z + \frac{0.75(L)}{R} \quad \text{Equation 7}$$

Where:

O_l = the operating limit for your PM CPMS on a 30-day rolling average, in milliamps.

L = your source emission limit expressed in lb/Mmbtu,

z = your instrument zero in milliamps, determined from subparagraph 9.6.k.2.A, and

R = the relative mg/dscm per milliamp for your PM CPMS, from Equation 6.

9.6.k.3. If the average of your three PM compliance test runs is at or above 75% of your PM emission limit you shall determine your operating limit by averaging the PM CPMS milliamp output corresponding to your three PM performance test runs that demonstrate compliance with the emission limit using Equation 8 and you shall submit all compliance test and PM CPMS data according to the reporting requirements in paragraph 9.6.k.5.

$$O_h = \frac{1}{n} \sum_{i=1}^n X_1 \quad \text{Equation 8}$$

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.

9.6.k.4. To determine continuous compliance, you shall record the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. You 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, 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 instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signals corresponding to each PM compliance test run.

9.6.l. 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 subdivisions 9.6.a and 9.6.b, you shall petition the Administrator for specific operating limits to be established during the initial performance test and continuously monitored thereafter. You shall submit the petition at least sixty days before the performance test is scheduled to begin. Your petition shall include the following five items:

9.6.l.1. Identification of the specific parameters you propose 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 you 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 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.

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

9.6.m. Reserved.

9.6.n. Affirmative Defense. -- In response to an action to enforce the standards set forth in subdivisions 9.6.a and 9.6.b, you may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at 40 CFR §60.2. Appropriate penalties may be assessed if you fail to meet your burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

9.6.n.1. To establish the affirmative defense in any action to enforce such a standard, you shall timely meet the reporting requirements in paragraph 9.6.n.2, and shall prove by a preponderance of evidence that:

9.6.n.1.A. The violation:

9.6.n.1.A.1. Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner; and

9.6.n.1.A.2. Could not have been prevented through careful planning, proper design or better

operation and maintenance practices; and

9.6.n.1.A.3. Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

9.6.n.1.A.4. Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

9.6.n.1.B. Repairs were made as expeditiously as possible when a violation occurred. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

9.6.n.1.C. The frequency, amount and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

9.6.n.1.D. If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

9.6.n.1.E. All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment and human health; and

9.6.n.1.F. All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

9.6.n.1.G. All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

9.6.n.1.H. At all times, the affected CISWI unit was operated in a manner consistent with good practices for minimizing emissions; and

9.6.n.1.I. A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

9.6.n.2. Report. -- The owner or operator seeking to assert an affirmative defense shall submit a written report to the Secretary with all necessary supporting documentation, that it has met the requirements set forth in paragraph 9.6.n.1. This affirmative defense report shall be included in the first periodic compliance, deviation report or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard.

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.

45CSR18

9.7.b. You 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. All performance tests shall be conducted using the minimum run duration specified in Table 18-2C and Tables 18-6C through 18-9C.

9.7.d. Method 1 of 40 CFR Part 60, Appendix A shall be used to select the sampling location and number of traverse points.

9.7.e. Method 3A or 3B of 40 CFR Part 60, Appendix A shall be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B of Appendix A shall be used simultaneously with each method.

9.7.f. All pollutant concentrations, except for opacity, shall be adjusted to 7 percent oxygen using Equation 1:

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

Where:

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

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

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

20.9 = oxygen concentration in air, percent; and

$\%O_2$ = oxygen concentration measured on a dry basis, percent.

9.7.g. You shall determine dioxins/furans toxic equivalency by following the procedures in paragraphs 9.7.g.1 through 9.7.g.4.

9.7.g.1. Measure the concentration of each dioxin/furan tetra- through octa-isomer emitted using EPA Method 23 at 40 CFR Part 60, Appendix A.

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. You shall 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).

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 18-4C.

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. Method 22 at 40 CFR Part 60, Appendix A-7 shall be used to determine compliance with the fugitive ash emission limit in Table 18-2C or Tables 18-6C through 18-9C.

9.7.i. If you have an applicable opacity operating limit, you shall 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 subdivisions 9.9.a through 9.9.w and subdivisions 9.10.a through 9.10.r.

9.7.j. You shall determine dioxins/furans total mass basis by following the procedures in paragraphs 9.7.j.1 through 9.7.j.3.

9.7.j.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.

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 shall 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).

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. You use results of performance tests to demonstrate compliance with the emission limitations in Table 18-2C or Tables 18-6C through 18-9C.

9.8. Initial Compliance Requirements.

9.8.a. You 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 18-2C and Tables 18-6C through 18-9C, to establish compliance with any opacity operating limits in subdivisions 9.6.a. through paragraph 9.6.k.5, 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 performance test shall be conducted using the test methods listed in Table 18-2C and Tables 18-6C through 18-9C 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. You shall conduct a performance evaluation of each continuous monitoring system within 60 days of installation of the monitoring system.

9.8.b. The initial performance test shall be conducted no later than 180 days after the final compliance date set forth in subdivision 9.3.b .

9.8.c. 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 section 9 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.

9.8.d. If you commence combusting or recommence combusting a solid waste at an existing combustion unit at any commercial or industrial facility and you have not conducted a performance test consistent with the provisions of section 9 while combusting the given solid waste within the 6 months preceding the reintroduction of that solid waste in the combustion chamber, you shall conduct a performance test within 60 days commencing or recommencing solid waste combustion.

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

9.8.f. Within 10 operating days following an air pollution control device 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.

9.9. Continuous Compliance Requirements.

9.9.a. Compliance with Standards.

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

9.9.a.2. If you cease combusting solid waste you may opt to remain subject to the provisions of section 9. Consistent with the definition of CISWI unit, you are subject to the requirements of section 9 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).

9.9.a.3. If you cease combusting solid waste you shall 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 shall be at least 6 months from the date that you ceased combusting solid waste, consistent with paragraph 9.9.a.2. Your source shall remain in compliance with section 9 until the effective date of the waste-to-fuel switch.

9.9.a.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 section 9 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 shall complete all initial compliance demonstrations for any §112 CAA standards that are applicable to your facility before you commence or recommence combustion of solid waste. You 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 you cease 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 6 months, and the fuel(s) or non-waste materials the unit will commence combusting;

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

9.9.a.4.E. 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 9.9.a.2 and 9.9.a.3.

9.9.a.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 shall be installed and operational as of the effective date of the waste-to-fuel, or fuel-to-waste switch.

9.9.a.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 shall be installed and operational as of the effective date of the waste-to-fuel, or fuel-to-waste switch. All calibration and drift checks shall be performed as of the effective date of the waste-to-fuel, or fuel-to-waste switch. Relative accuracy tests shall 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 §112 CAA monitoring requirements or monitoring requirements under section 9.

9.9.b. You shall conduct an annual performance test for the pollutants listed in Table 18-2C or Tables 18-6C through 18-9C and opacity for each CISWI unit as required under subsection 9.7. The annual performance test shall be conducted using the test methods listed in Table 18-2C or Tables 18-6C through 18-9C and the procedures in subsection 9.7. Opacity shall 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.

9.9.c. You 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, 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 your 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. You 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, you shall perform annual visual

emissions test for ash handling.

9.9.f. For energy recovery units, you shall 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 continuous parameter monitoring systems are used) and the pollutants listed in Table 18-7C.

9.9.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 according to the following requirements:

9.9.g.1. You shall measure emissions according to 40 CFR §60.13 to calculate 1-hour arithmetic averages, corrected to 7 percent oxygen. CEMS data during startup and shutdown, as defined in 40 CFR §60.2265, are not corrected to 7 percent oxygen, and are measured at stack oxygen content. You shall demonstrate initial compliance with the carbon monoxide emissions limit using a 30-day rolling average of the 1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown, as defined in 40 CFR §60.2265, calculated using Equation 19-19 in Section 12.4.1 of EPA Reference Method 19 at 40 CFR Part 60, Appendix A-7.

9.9.g.2. You 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 the quality assurance procedures of Appendix F of 40 CFR Part 60.

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 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 40 CFR Part 60, Appendix A-3 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 you 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.

9.9.j. For waste-burning kilns, you shall conduct an annual performance test for the pollutants (except mercury and particulate matter, and hydrogen chloride if no acid gas wet scrubber is used) listed in Table 18-8C. If your waste-burning kiln is not equipped with a wet scrubber or dry scrubber, you shall determine compliance with the hydrogen chloride emission limit using a CEMS as specified in subdivisions 9.10.a through 9.10.r. You shall determine compliance with particulate matter using CPMS. You shall determine compliance with the mercury emissions limit using a mercury CEMS according to the following requirements:

9.9.j.1. Operate a CEMS in accordance with Performance Specification 12A at 40 CFR Part 60, Appendix B or a sorbent trap based integrated monitor in accordance with Performance Specification 12B at 40 CFR Part 60, Appendix B. The duration of the performance test shall be a calendar month. For each calendar month in which the waste-burning kiln operates, hourly mercury concentration data and stack gas volumetric flow rate data shall be obtained. You shall demonstrate compliance with the mercury emissions

limit using a 30-day rolling average of these 1-hour mercury concentrations, including CEMS data during startup and shutdown as defined in 40 CFR §60.2265, calculated using Equation 19-19 in Section 12.4.1 of EPA Reference Method 19 at 40 CFR Part 60, Appendix A-7. CEMS data during startup and shutdown, as defined in 40 CFR §60.2265, are not corrected to 7 percent oxygen, and are measured at stack oxygen content.

9.9.j.2. Owners or operators using a mercury continuous emissions monitoring systems 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 at 40 CFR Part 60, Appendix B and Quality Assurance Procedure 5 at 40 CFR Part 60, Appendix F.

9.9.j.3. The owner or operator of a waste-burning kiln shall demonstrate initial compliance by operating a mercury CEMS 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 you use an air pollution control device to meet the emission limitations in section 9, you 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.

9.9.k.2. Develop a site-specific monitoring plan according to the requirements in subdivision 9.9.1. This requirement also applies to you if you petition the Administrator for alternative monitoring parameters under 40 CFR §60.13(i).

9.9.1. For each CMS required in this section, you shall develop and submit to the Secretary for approval a site-specific monitoring plan according to the requirements of this subdivision that addresses subparagraphs 9.9.1.1.A through 9.9.1.1.F.

9.9.1.1. You shall submit this site-specific monitoring plan at least 60 days before your initial performance evaluation of your continuous monitoring system.

9.9.1.1.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).

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

9.9.1.1.C. Performance evaluation procedures and acceptance criteria (e.g., calibrations).

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

9.9.1.1.E. Ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR §60.13.

9.9.1.1.F. Ongoing recordkeeping and reporting procedures in accordance with the general

requirements of 40 CFR §§60.7(b),(c), (c)(1), (c)(4), (d), (e), (f) and (g).

9.9.1.2. You shall conduct a performance evaluation of each continuous monitoring system in accordance with your site-specific monitoring plan.

9.9.1.3. You shall operate and maintain the continuous monitoring system in continuous operation according to the site-specific monitoring plan.

9.9.m. If you have an operating limit that requires the use of a flow monitoring system, you shall meet the requirements in subdivision 9.9.1 and paragraphs 9.9.m.1 through 9.9.m.4.

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 2 percent.

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

9.9.m.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.

9.9.n. If you have an operating limit that requires the use of a pressure monitoring system, you shall meet the requirements in subdivision 9.9.1 and paragraphs 9.9.n.1 through 9.9.n.6.

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 1 percent of the pressure monitoring system operating range, whichever is less.

9.9.n.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 pluggage daily).

9.9.n.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.

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 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.

9.9.o. If you have an operating limit that requires a pH monitoring system, you shall meet the requirements in paragraphs 9.9.o.1 through 9.9.o.4.

45CSR18

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 your monitoring plan at least once each process operating day.

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

9.9.p. If you have an operating limit that requires a secondary electric power monitoring system for an electrostatic precipitator, you shall meet the requirements in subdivision 9.9.1 and paragraphs 9.9.p.1 and 9.9.p.2.

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

9.9.p.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.

9.9.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 shall meet the requirements in subdivision 9.9.1 and paragraphs 9.9.q.1 through 9.9.q.2.

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

9.9.q.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.

9.9.r. If you elect to use a fabric filter bag leak detection system to comply with the requirements of section 9, you shall install, calibrate, maintain, and continuously operate a bag leak detection system as specified in subdivision 9.9.1 and paragraphs 9.9.r.1 through 9.9.r.5.

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 10 milligrams per actual cubic meter or less.

9.9.r.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 (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.

9.9.r.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 shall be located where it is observed readily by plant operating personnel.

9.9.s. For facilities using a CEMS to demonstrate compliance with the sulfur dioxide emission limit, compliance with the sulfur dioxide emission limit may be demonstrated by using the CEMS specified in subdivisions 9.10.a through 9.10.r to measure sulfur dioxide. CEMS data during startup and shutdown, as defined in 40 CFR §60.2265, are not corrected to 7 percent oxygen, and are measured at stack oxygen content. You shall calculate a 30-day rolling average of the 1-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 sulfur dioxide CEMS shall be operated according to Performance Specification 2 in Appendix B of 40 CFR Part 60 and shall follow the procedures and methods specified in this subdivision. 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.

9.9.s.1. During each relative accuracy test run of the CEMS required by Performance Specification 2 in Appendix B of 40 CFR Part 60, 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 subparagraphs 9.9.s.1.A and 9.9.s.1.B.

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) shall be used.

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

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

9.9.s.3. Conduct accuracy determinations quarterly and calibration drift tests daily in accordance with Procedure 1 in Appendix F of 40 CFR Part 60.

9.9.t. For facilities using a CEMS to demonstrate continuous compliance with the nitrogen oxides emission limit, compliance with the nitrogen oxides emission limit may be demonstrated by using the CEMS specified in subdivisions 9.10.a through 9.10.r to measure nitrogen oxides. CEMS data during startup and shutdown, as defined in 40 CFR §60.2265, are not corrected to 7 percent oxygen, and are measured at stack oxygen content. You shall calculate a 30-day rolling average of the 1-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 nitrogen oxides CEMS shall be operated 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.

9.9.t.1. During each relative accuracy test run of the CEMS required by Performance Specification 2 of Appendix B of 40 CFR Part 60, 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.

9.9.t.1.A. For nitrogen oxides, EPA Reference Method 7 or 7E of 40 CFR Part 60, Appendix A-4 shall be used.

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

9.9.t.2. The span value of the CEMS shall be 125 percent 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 40 CFR Part 60.

9.9.t.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 shall be established during the initial performance test according to the procedures and methods specified in subparagraphs 9.9.t.4.A through 9.9.t.4.D. This relationship may be reestablished during performance compliance tests.

9.9.t.4.A. The fuel factor equation in Method 3B shall 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 (refer to 40 CFR §60.17), as applicable, shall be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.

9.9.t.4.B. Samples shall be taken for at least 30 minutes in each hour.

9.9.t.4.C. Each sample shall represent a 1-hour average.

9.9.t.4.D. A minimum of 3 runs shall be performed.

9.9.u. For facilities using a CEMS to demonstrate continuous compliance with any of the emission limits of section 9, you shall complete the following:

9.9.u.1. Demonstrate compliance with the appropriate emission limit(s) using a 30-day rolling average of 1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown, as defined in 40 CFR §60.2265, calculated using Equation 19-19 in Section 12.4.1 of EPA Reference Method 19 at 40 CFR Part 60, Appendix A-7. CEMS data during startup and shutdown, as defined in 40 CFR §60.2265, are not corrected to 7 percent oxygen, and are measured at stack oxygen content.

45CSR18

9.9.u.2. Operate all CEMS in accordance with the applicable procedures under Appendices B and F of 40 CFR Part 60.

9.9.v. Use of the bypass stack at any time is an emissions standards deviation for particulate matter, HCl, Pb, Cd, Hg, NO_x, SO₂, 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, you shall install, operate and maintain an oxygen analyzer system as defined in 40 CFR §60.2265 according to the procedures in paragraphs 9.9.w.1 through 9.9.w.4.

9.9.w.1. The oxygen analyzer system shall be installed by the initial performance test date subdivision 9.6.c through paragraph 9.6.k.5.

9.9.w.2. You shall operate the oxygen trim system within compliance with paragraph 9.9.w.3 at all times.

9.9.w.3. You shall 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.

9.9.w.4. You 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 A7 of 40 CFR 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, you 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. 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).

9.9.x.1. Install, calibrate, operate, and maintain your PM CPMS according to the procedures in your 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 operating principle of the PM CPMS shall 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 shall be expressed as milliamps.

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.

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

9.9.x.2. During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, you shall 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.

9.9.x.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 millamps.

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. You 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 9.9.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 your site-specific monitoring plan.

9.9.x.6. You shall 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:

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 are not used in calculations (report any such periods in your annual deviation report);

9.9.x.6.B. 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);

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.

9.9.x.7. You shall 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.

9.9.x.8. For any deviation of the 30-day rolling average PM CPMS average value from the established operating parameter limit, you 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. Within 45 days of the deviation, you shall 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 subparagraph.

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. Timing of Performance Tests and Control Device Inspections.

9.9.y.1. You shall conduct annual performance tests between 11 and 13 months of the previous performance test.

9.9.y.2. You shall 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.

9.9.y.3. You shall conduct annual performance tests according to the schedule specified in subdivision 9.9.x, with the following exceptions:

9.9.y.3.A. You may conduct a repeat performance test at any time to establish new values for the operating limits to apply from that point forward, as specified in subdivision 9.9.z. The Secretary may request a repeat performance test at any time.

9.9.y.3.B. You shall repeat the performance test within 60 days of a process change, as defined in 40 CFR §60.2265.

9.9.y.3.C. If the initial or any subsequent performance test for any pollutant in Table 18-2C or Tables 18-6C through 18-9C, as applicable, demonstrates that the emission level for the pollutant is no greater than the emission level specified in parts 9.9.y.3.C.1 or 9.9.y.3.C.2, as applicable, and you are not required to conduct a performance test for the pollutant in response to a request by the Secretary in subparagraph 9.9.y.3.A or a process change in subparagraph 9.9.y.3.B, you may elect to skip conducting a performance test for the pollutant for the next 2 years. You 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, both cadmium and lead shall be emitted at emission levels no greater than their respective emission levels specified in part 9.9.y.3.C.1 for you to qualify for less frequent testing under paragraph 9.9.y.3.

9.9.y.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 18-2C or Tables 18-6C through 18-9C, as applicable.

9.9.y.3.C.2. 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.

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

9.9.y.4. Reserved.

9.9.z. Repeat Performance Test to Establish New Operating Limits.

9.9.z.1. You 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.z.2. You shall repeat the performance test if your 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 you are using a wet scrubber to comply with the emission limitation under subdivisions 9.6.a. and 9.6.b, you 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 18-3C. These devices (or methods) shall measure and record the values for these operating parameters at the frequencies indicated in Table 18-3C at all times except as specified in paragraph 9.10.s.1.

9.10.b. If you use a fabric filter to comply with the requirements of section 9, you 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.

9.10.b.1. You shall 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 10 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 an operator when an increase in relative particulate matter emission over a preset level is detected. 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.

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

9.10.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 subdivisions 9.6.a. and 9.6.b, you 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 9.6.1 through 9.6.m.

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

9.10.e. If you use selective noncatalytic reduction to comply with the emission limitations, you 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 your CISWI unit) or the minimum reagent flow rate measured as 3-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 you use an electrostatic precipitator to comply with the emission limits of section 9, you shall 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.

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 owner or operator shall install, calibrate, maintain, and operate a CEMS for monitoring hydrogen chloride emissions discharged to the atmosphere and record the output of the system. To demonstrate continuous compliance with the hydrogen chloride emissions limit for units other than waste-burning kilns not equipped with a wet scrubber or dry scrubber, a facility may substitute use of a hydrogen chloride CEMS for conducting the hydrogen chloride annual performance test, monitoring the minimum hydrogen chloride sorbent flow rate and monitoring the minimum scrubber liquor pH.

9.10.h. To demonstrate continuous compliance with the particulate matter emissions limit, a facility may substitute use of a particulate matter CEMS for conducting the particulate matter annual performance test and other CMS monitoring for PM compliance (e.g., bag leak detectors, ESP secondary power, PM scrubber pressure).

9.10.i. To demonstrate continuous compliance with the dioxin/furan emissions limit, a facility may substitute use of a continuous automated sampling system for the dioxin/furan annual performance test. You shall 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 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 continuous compliance with the mercury emissions limit, a facility may substitute use of a continuous automated sampling system for the mercury annual performance test. You 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 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 40 CFR §60.17), or an approved alternative method for measuring mercury emissions, 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 mercury monitoring for the minimum sorbent flow rate, if activated carbon sorbent injection is used solely for compliance with the mercury emission limit.

9.10.k. To demonstrate continuous compliance with the nitrogen oxides emissions limit, a facility may substitute use of a CEMS for the nitrogen oxides annual performance test to demonstrate compliance with the nitrogen oxides emissions limits and monitoring the charge rate, secondary chamber temperature and reagent flow for selective noncatalytic reduction, if applicable.

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 requirements under Performance Specification 2 of Appendix B of 40 CFR Part 60, the Quality Assurance Procedure 1 of Appendix F of 40 CFR Part 60 and the procedures under 40 CFR §60.13 shall be followed 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, compliance with the emission limit for nitrogen oxides required under 40 CFR §60.52b(d) shall be determined based on the 30-day rolling average of the hourly emission concentrations using CEMS outlet data. The 1-hour arithmetic averages shall be expressed in parts per million by volume corrected to 7 percent oxygen (dry basis) and used to calculate the 30-day rolling average concentrations. CEMS data during startup and shutdown, as defined in 40 CFR §60.2265, are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The 1-hour arithmetic averages shall be calculated using the data points required under 40 CFR §60.13(e)(2).

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

9.10.l.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 40 CFR Part 60, the Quality Assurance requirements of Procedure 1 of Appendix F of 40 CFR Part 60 and the procedures under 40 CFR §60.13 shall be followed for installation, evaluation and operation of the CEMS.

9.10.1.2. 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, compliance with the sulfur dioxide emission limit may be determined based on the 30-day rolling average of the hourly arithmetic average emission concentrations using CEMS outlet data. The 1-hour arithmetic averages shall be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 30-day rolling average emission concentrations. CEMS data during startup and shutdown, as defined in 40 CFR §60.2265, are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The 1-hour arithmetic averages shall be calculated using the data points required under 40 CFR §60.13(e)(2).

9.10.m. For energy recovery units that do not use a wet scrubber, fabric filter with bag leak detection system, or particulate matter CEMS, you 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.

9.10.m.1. Install, operate and maintain each continuous opacity monitoring system according to Performance Specification 1 at 40 CFR 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 40 CFR Part 60, Appendix B.

9.10.m.3. As specified in 40 CFR §60.13(e)(1), each continuous opacity monitoring system shall 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.

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

9.10.m.5. Determine and record all the 6-minute averages (and 1-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 40 CFR Part 60, Appendix A-3 or, as applicable, monitor with a particulate matter CPMS according to subdivision 9.10.r, shall install, calibrate, maintain and operate a CEMS and shall comply with the requirements specified in paragraphs 9.10.n.1 through 9.10.n.13.

9.10.n.1. Notify the Secretary 1 month before starting use of the system.

9.10.n.2. Notify the Secretary 1 month before stopping use of the system.

9.10.n.3. The monitor shall be installed, evaluated and operated in accordance with the requirements of Performance Specification 11 of Appendix B of 40 CFR Part 60 and quality assurance

requirements of Procedure 2 of Appendix F of 40 CFR Part 60 and 40 CFR §60.13.

9.10.n.4. The initial performance evaluation shall be completed 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.

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 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 9.9.t.4.D.

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. Compliance with the particulate matter emission limit, if PM CEMS are elected for demonstrating compliance, shall be determined by using the CEMS specified in subdivision 9.10.n to measure particulate matter. You shall calculate a 30-day rolling average of 1-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.

9.10.n.7. Compliance with the particulate matter emission limit shall 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 of the CEMS outlet data.

9.10.n.8. At a minimum, valid continuous monitoring system hourly averages shall be obtained as specified in subdivision 9.10.s.

9.10.n.9. The 1-hour arithmetic averages required under paragraph 9.10.n.7 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 40 CFR §60.2265, are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The 1-hour arithmetic averages shall be calculated using the data points required under 40 CFR §60.13(e)(2).

9.10.n.10. All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph 9.10.n.8 are not met.

9.10.n.11. The continuous CEMS shall be operated 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, particulate matter and oxygen (or carbon dioxide) data shall be collected 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 shall be used.

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, shall be used.

9.10.n.13. Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 2 in Appendix F of 40 CFR Part 60.

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

9.10.o.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 4B of Appendix B of 40 CFR Part 60, the Quality Assurance Procedure 1 of Appendix F of 40 CFR Part 60 and the procedures under 40CFR §60.13 shall be followed 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, compliance with the carbon monoxide emission limit may 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 40 CFR §60.2265, using CEMS outlet data. Except for CEMS data during startup and shutdown, as defined in 40 CFR §60.2265, the 1-hour arithmetic averages shall be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 30-day rolling average emission concentrations. CEMS data during startup and shutdown, as defined in 40 CFR §60.2265, are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The 1-hour arithmetic averages shall be calculated 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 design heat input capacity of 100 MMBtu/hr or greater that do not use a carbon monoxide CEMS, you shall install, operate and maintain an oxygen analyzer system as defined in 40 CFR §60.2265 according to the procedures in paragraphs 9.10.q.1 through 9.10.q.4.

9.10.q.1. The oxygen analyzer system shall be installed by the initial performance test date subdivision 9.6.c through paragraph 9.6.k.5.

9.10.q.2. You shall operate the oxygen trim system within compliance with paragraph 9.10.q.3 at all times.

9.10.q.3. You 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.

9.10.q.4. You 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 40 CFR 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, you 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. 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).

9.10.r.1. Install, calibrate, operate, and maintain your PM CPMS according to the procedures in your approved site-specific monitoring plan developed in accordance with subdivision 9.9 and subparagraphs 9.10.r.1.A through 9.10.r.1.C.

9.10.r.1.A. The operating principle of the PM CPMS shall 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 shall be expressed as milliamps.

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.

9.10.r.1.C. The PM CPMS shall be capable of detecting and responding to particulate matter concentrations of 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, you shall 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.

9.10.r.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 millamps.

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 wasteburning kiln operating hours data (milliamps).

9.10.r.5. You 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 your site-specific monitoring plan.

9.10.r.6. You shall use all the data collected during all energy recovery unit or wasteburning kiln operating hours in assessing the compliance with your operating limit except:

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 are not used in calculations (report any such periods in your annual deviation report);

9.10.r.6.B. 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);

9.10.r.6.C. Any PM CPMS data recorded during periods of CEMS data during startup and shutdown, as defined in 40 CFR §60.2265.

9.10.r.7. You shall 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.

9.10.r.8. For any deviation of the 30-day rolling average PM CPMS average value from the established operating parameter limit, you 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. Within 45 days of the deviation, you shall reestablish 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 subparagraph.

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. If you use a dry scrubber to comply with the emission limits of section 9, you shall 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.

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

9.10.s.1. You 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. 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.

9.10.s.2. 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 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. 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. -- You 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 5 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.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, you 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, you shall also maintain records of the load fraction and corresponding sorbent injection rate records.

9.11.b.6. If a fabric filter is used to comply with the emission limitations, you shall 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 shall also record the percent of operating time during each 6-month period that the alarm sounds, calculated as specified in subdivision 9.6.e.

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 18-3C 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 such deviations, and a description of corrective actions taken.

45CSR18

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 pager number at which they 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. On a daily basis, keep a log of the quantity of waste burned and the types of waste burned (always required).

9.11.n. Maintain records of the annual air pollution control device inspections that are required for each CISWI unit subject to the emissions limits in Table 18-2C or Tables 18-6C through 18-9C, any required maintenance and any repairs not completed within 10 days of an inspection or the timeframe established by the Secretary.

9.11.o. For continuously monitored pollutants or parameters, you shall document and keep a record of the following parameters measured using continuous monitoring systems.

9.11.o.1. All 6-minute average levels of opacity.

9.11.o.2. All 1-hour average concentrations of sulfur dioxide emissions. You shall indicate which data are CEMS data during startup and shutdown.

9.11.o.3. All 1-hour average concentrations of nitrogen oxides emissions. You shall indicate which data are CEMS data during startup and shutdown.

9.11.o.4. All 1-hour average concentrations of carbon monoxide emissions. You shall indicate which data are CEMS data during startup and shutdown.

9.11.o.5. All 1-hour average concentrations of particulate matter emissions. You shall indicate

which data are CEMS data during startup and shutdown.

9.11.o.6. All 1-hour average concentrations of mercury emissions. You shall indicate which data are CEMS data during startup and shutdown.

9.11.o.7. All 1-hour average concentrations of hydrogen chloride emissions. You shall indicate which data are CEMS data during startup and shutdown.

9.11.o.8. All 1-hour average percent oxygen concentrations.

9.11.o.9. All 1-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 you choose to stack test less frequently than annually, consistent with paragraphs 9.9.y.1 and 9.9.y.2, you shall 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.

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 have been determined not to be solid waste pursuant to 40 CFR §241.3(b)(1), you shall keep a record which documents how the secondary material meets each of the legitimacy criteria under 40 CFR §241.3(d)(1). If you combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR §241.3(b)(4), you shall keep 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), you shall keep a record that documents 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, you shall keep 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 §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.

9.11.w. Records of the criteria used to establish that the unit qualifies as a cogeneration facility under §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.

9.12. Reporting Requirements.

9.12.a. Refer to Table 18-5C for a summary of the reporting requirements.

9.12.b. You shall submit a waste management plan no later than the date specified in Table 18-1C for submittal of the final control plan.

9.12.c. You 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. All reports shall be 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.

9.12.c.3. 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 subdivision 9.10.b.

9.12.d. You shall submit an annual report no later than 12 months following the submission of the information in subdivision 9.12.c. You shall submit subsequent reports no more than 12 months following the previous report. If the unit is subject to Title V permitting requirements under 45CSR30, you may be required by the permit to submit these reports more frequently.

9.12.e. 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. If you have a deviation from the operating limits or the emission limitations, you shall also submit deviation reports as specified in subdivisions 9.12.f, 9.12.g and 9.12.h.

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. 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.

9.12.e.6. The highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported.

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 results of that test.

9.12.e.9. If you met the requirements of paragraph 9.9.y.1 or 9.9.y.2, and did not conduct a performance test during the reporting period, you shall state that you met the requirements of paragraph 9.9.y.1 or 9.9.y.2, and, therefore, you were not required to 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 8 hours, but less than 2 weeks.

9.12.e.11. If you had a malfunction during the reporting period, the compliance report shall 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 shall 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 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 you are 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.

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 you are 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. 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.

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.

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.

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.

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. You shall submit a deviation report if any recorded 3-hour average parameter level is above the maximum operating limit or below the minimum operating limit established under section 9, if the bag leak detection system alarm sounds for more than 5 percent of the operating time for the 6-month reporting period, or if a performance test was conducted that deviated from any emission limitation.

9.12.f.2. The deviation report shall 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).

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, include the four items described in paragraphs 9.12.g.1 through 9.12.g.4.

9.12.g.1. The calendar dates and times your 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 your corrective actions.

9.12.g.3.B. Bypass events and your 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.

9.12.h. Deviation from the Requirement to have a Qualified Operator Accessible. -- If all qualified operators are not accessible for 2 weeks or more, you shall take the two actions in paragraphs 9.12.h.1 and 9.12.h.2.

9.12.h.1. Submit a notification of the deviation within 10 days that includes the three items in subparagraphs 9.12.h.1.A through 9.12.h.1.C.

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

9.12.h.1.B. A description of what you are doing to ensure that a qualified operator is accessible.

9.12.h.1.C. The date when you anticipate that a qualified operator will be available.

9.12.h.2. Submit a status report to the Secretary every 4 weeks that includes the three items in subparagraphs 9.12.h.2.A through 9.12.h.2.C.

9.12.h.2.A. A description of what you are doing to ensure that a qualified operator is accessible.

9.12.h.2.B. The date when you anticipate that a qualified operator will be accessible.

9.12.h.2.C. Request approval from the Administrator to continue operation of the CISWI unit.

9.12.h.3. If your unit was shut down by the Administrator under the provisions of paragraph 9.12.h.2 due to a failure to provide an accessible qualified operator, you shall notify the Administrator that you are resuming operation once a qualified operator is accessible.

9.12.i. Other Notifications and Reports.

45CSR18

9.12.i.1. You shall submit notifications as provided by 40 CFR §60.7.

9.12.i.2. If you cease combusting solid waste but continue to operate, you 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, and any 40 CFR Part 63 Subpart and subcategory that will be applicable after you cease 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 6 months, and the fuel(s) or non-waste materials the unit will commence combusting;

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

9.12.i.2.E. 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 subparagraphs 9.12.i.2.B and 9.12.i.2.C.

9.12.j. Form of Reports.

9.12.j.1. Submit initial, annual and deviation reports electronically or in paper format, postmarked on or before the submittal due dates.

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, you shall submit the results of the performance tests required by section 9 to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX)(www.epa.gov/cdx). Performance test data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) shall submit a complete ERT file including information claimed to be CBI on a compact disk, flash drive, or other commonly used electronic storage media to EPA. The electronic media shall be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted shall be submitted to EPA via CDX as described earlier in this subparagraph. At the discretion of the delegated authority, you shall also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority. For any performance test conducted using test methods that are not listed on the ERT Web site, the owner or operator shall submit the results of the performance test in paper submissions to the Administrator.

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, you shall submit the relative accuracy test audit (RATA) data electronically into EPA's Central Data Exchange by using CEDRI as mentioned in subparagraph 9.12.j.2.A. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, the owner or operator shall submit the results of the performance evaluation in paper submissions to the Administrator.

9.12.k. Changes to Reporting Dates. -- If the Secretary agrees, you may change the semiannual or annual reporting dates. Refer to 40 CFR §60.19(c) for procedures to seek approval to change your reporting date.

9.13. Requirements for Air Curtain Incinerators.

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 are only required to meet the requirements under subsection 9.13.

9.13.b.1. 100 percent wood waste.

9.13.b.2. 100 percent clean lumber.

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

9.13.c. Increments of Progress. -- If you plan to achieve compliance more than 1 year following the effective date of the West Virginia §111(d)/129 plan approval, you shall meet the two increments of progress specified in paragraphs 9.13.c.1 and 9.13.c.2.

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

9.13.c.2. Achieve final compliance.

9.13.d. Table 18-1C specifies compliance dates for each of the increments of progress.

9.13.e. Notifications of Achievement. -- Your notification of achievement of increments of progress shall include the three items described in paragraphs 9.13.e.1 through 9.13.e.3.

9.13.e.1. Notification that the increment of progress has been achieved.

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

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

45CSR18

9.13.f. Notifications for achieving increments of progress shall be postmarked no later than 10 business days after the compliance date for the increment.

9.13.g. Failure to Meet an Increment of Progress. -- If you fail to meet an increment of progress, you shall submit a notification to the Secretary postmarked within 10 business days after the date for that increment of progress in Table 18-1C. You shall inform the Secretary that you did not meet the increment, and you shall continue to submit reports each subsequent calendar month until the increment of progress is met.

9.13.h. For your control plan increment of progress, you shall satisfy the two requirements specified in paragraphs 9.13.h.1 and 9.13.h.2.

9.13.h.1. 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 section 9.

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

9.13.i. For the final compliance increment of progress, you 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 you close your incinerator but will reopen it prior to the final compliance date, you shall meet the increments of progress specified in subdivision 9.13.c.

9.13.j.2. If you close your incinerator but will restart it after your final compliance date, you shall complete emission control retrofits and meet the emission limitations on the date your incinerator restarts operation.

9.13.k. Permanent Closure. -- If you plan to close your incinerator rather than comply with section 9, submit a closure notification, including the date of closure, to the Secretary by the date your 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), you shall meet the limitations in paragraphs 9.13.l.1 and 9.13.l.2.

9.13.l.1. 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 9.13.l.2.

9.13.l.2. 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.

9.13.m. Opacity Monitoring for Air Curtain Incinerators.

45CSR18

9.13.m.1. Use Method 9 of Appendix A of 40 CFR 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 your final compliance date.

9.13.m.3. After the initial test for opacity, conduct annual tests no more than 12 calendar months following the date of your previous test.

9.13.n. Recordkeeping and Reporting Requirements for Air Curtain Incinerators.

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 5 years.

9.13.n.2. Make all records available for submittal to the Secretary or for an inspector's onsite review.

9.13.n.3. Submit an initial report no later than 60 days following the initial opacity test that includes the information specified in subparagraphs 9.13.n.3.A and 9.13.n.3.B.

9.13.n.3.A. The types of materials you plan to combust in your air curtain incinerator.

9.13.n.3.B. 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.

9.13.n.4. Submit annual opacity test results to the Secretary within 12 months following the previous report.

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 5 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 18-2C and operating limits established under subdivision 9.6.c.

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 9.6.1.

9.14.g. The requirements in subparagraph 9.5.k.2.B.

9.14.h. Approval of alternative opacity emission limits in subdivisions 9.6.a and 9.6.b under 40 CFR §§60.11(e)(6) through (e)(8).

9.14.i. Performance test and data reduction waivers under subdivision 9.7.j, 40 CFR §§60.8(b)(4) and (5).

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 is combusting homogenous waste as that term is defined in 40 CFR §60.2265.

§45-18-10. Requirements for New Other Solid Waste Incineration Units.

10.1. Requirements for New OSWI Units. -- The owner or operator of an other 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 which results in a violation of 40 CFR Part 60, Subpart EEEE or this rule.

10.2. Applicability. -- The owner or operator of a OSWI unit that meets the following criteria shall be 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 which 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 shall be 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":

45CSR18

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; or

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;

12.1.b.10. Performance test and data reduction waivers under 40 CFR §60.8(b); and

12.1.c. Where the context of the regulation clearly requires otherwise.

§45-18-13. Permits.

13.1. On or before September 15, 2000, 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 a new OSWI unit may be required to apply for and obtain a Title V permit prior to this date, as specified in 40 CFR §60.2967(b).

45CSR18

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 shall be 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) shall be 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 shall be 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 shall be exempt from the requirements of this rule provided:

14.4.a. The unit burns 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low-level radioactive waste, 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 shall be exempt from the requirements of this rule.

14.6. Any incinerator or combustor subject to 42 U.S.C. §6925, 45CSR25 and 33CSR20 shall be exempt from the requirements of this rule.

14.7. Any combustor subject to 40 CFR Part 63, Subpart EEE shall be 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 West Virginia Department of Environmental Protection, 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 18-1A
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			Averaging Time ¹	Compliance Method ²
		HMIWI Size				
		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 40 CFR Part 60, or EPA Reference Method 26A or 29 of Appendix A-8 of 40 CFR 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 40 CFR Part 60.
Dioxins/furans	Nanograms per dry standard cubic meter total dioxins/furans (ng/dscm) (grains per billion dry standard cubic feet (gr/10 ⁹ dscf)) or ng/dscm TEQ (gr/10 ⁹ dscf)	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 40 CFR 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 40 CFR 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 40 CFR 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 40 CFR 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 40 CFR 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 40 CFR 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 40 CFR Part 60.

¹Except as allowed under 40 CFR §60.56c(c) for HMIWI equipped with CEMS.

²Does not include CEMS and approved alternative non-EPA test methods allowed under 40 CFR §60.56c(b).

TABLE 18-1B

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			Averaging Time ¹	Compliance Method ²
		HMIWI Size				
		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 40 CFR Part 60, or EPA Reference Method 26A or 29 of Appendix A-8 of 40 CFR 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 40 CFR Part 60.
Dioxins/furans	Nanograms per dry standard cubic meter total dioxins/furans (ng/dscm) (grains per billion dry standard cubic feet (gr/10 ⁹ dscf)) or ng/dscm TEQ (gr/10 ⁹ dscf)	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 40 CFR 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 40 CFR 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 40 CFR 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 40 CFR Part 60.
Lead	mg/dscm (grains per thousand dry standard cubic feet (gr/10 ³ dscf))	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 40 CFR Part 60.
Cadmium	mg/dscm (gr/10 ³ dscf)	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 40 CFR Part 60.
Mercury	mg/dscm (gr/10 ³ dscf)	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 40 CFR Part 60.

¹Except as allowed under 40 CFR §60.56c(c) for HMIWI equipped with CEMS.²Does not include CEMS and approved alternative non-EPA test methods allowed under 40 CFR §60.56c(b).

TABLE 18-2A
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 Time¹	Compliance Method²
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 40 CFR Part 60, or EPA Reference Method 26A or 29 of Appendix A-8 of 40 CFR 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 40 CFR Part 60.
Dioxins/furans	ng/dscm total dioxins/furans (gr/10 ⁹ dscf) or ng/dscm TEQ (gr/10 ⁹ dscf)	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 40 CFR 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 40 CFR 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 40 CFR 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 40 CFR Part 60.
Lead	mg/dscm (gr/10 ³ dscf)	10 (4.4)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of Appendix A-8 of 40 CFR Part 60.
Cadmium	mg/dscm (gr/10 ³ dscf)	4 (1.7)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of Appendix A-8 of 40 CFR Part 60.
Mercury	mg/dscm (gr/10 ³ dscf)	7.5 (3.3)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of Appendix A-8 of 40 CFR Part 60.

¹Except as allowed under 40 CFR §60.56c(c) for HMIWI equipped with CEMS.

²Does not include CEMS and approved alternative non-EPA test methods allowed under 40 CFR §60.56c(b).

TABLE 18-2B
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 40 CFR Part 60, or EPA Reference Method 26A or 29 of Appendix A-8 of 40 CFR 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 40 CFR Part 60.
Dioxins/furans	ng/dscm total dioxins/furans (gr/10 ⁹ dscf) or ng/dscm TEQ (gr/10 ⁹ dscf)	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 40 CFR 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 40 CFR 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 40 CFR 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 40 CFR Part 60.
Lead	mg/dscm (gr/10 ³ dscf)	0.50 (0.22)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of Appendix A-8 of 40 CFR Part 60.
Cadmium	mg/dscm (gr/10 ³ dscf)	0.11 (0.048)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of Appendix A-8 of 40 CFR Part 60.
Mercury	mg/dscm (gr/10 ³ dscf)	0.0051 (0.0022)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of Appendix A-8 of 40 CFR Part 60.

¹Except as allowed under 40 CFR §60.56c(c) for HMIWI equipped with CEMS.

²Does not include CEMS and approved alternative non-EPA test methods allowed under 40 CFR §60.56c(b).

TABLE 18-1C
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 18-2C

Emission Limits for Existing Commercial and Industrial Solid Waste Incineration Units 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 40 CFR 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 40 CFR 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 40 CFR 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 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 40 CFR 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 40 CFR Part 60, Appendix A-8) or ASTM D6784-02 (Reapproved 2008) ^c
Opacity	10 percent	Three 1-hour blocks consisting of ten 6-minute average opacity values.	Performance test (Method 9 of 40 CFR Part 60, Appendix A-4)
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 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 40 CFR 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 40 CFR Part 60, Appendix A)

^aAll emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.

^bApplies 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.

^cIncorporated by reference, see 40 CFR §60.17.

TABLE 18-3C
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 18-4C
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 18-5C
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 18-1C 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, 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.y.1 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.y.1, 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.y.1 and a statement as to whether there have been any operational changes since the last performance test that could increase emissions.	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 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.	paragraph 9.12.h.1
Qualified Operator	Every 4 weeks following deviation	Description of efforts to have an accessible qualified operator.	paragraph 9.12.h.2

Deviation Status Report		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.	paragraph 9.12.h.3

^a This table is only a summary, see the referenced subdivisions and paragraphs for the complete requirements.

TABLE 18-6C

Emission Limits for Existing Commercial and Industrial Solid Waste Incineration Units that Apply After February 7, 2018^a

Air Pollutant	Emission Limit ^b	Averaging Time	Performance Test Methods
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 40 CFR 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 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 of 40 CFR 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 40 CFR Part 60, Appendix A-8).
Lead	0.015 milligrams per dry standard cubic meter. ^c	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of 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 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 40 CFR Part 60, Appendix A).	Performance test (Method 29 or 30B of 40 CFR Part 60, Appendix A-8) or ASTM D6784-02 (Reapproved 2008) ^d .
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 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 of 40 CFR 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 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).
--------------	---	-----------------------------------	--

^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 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.y if all of the other provisions of subdivision 9.9.y 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.

TABLE 18-7C
Emission Limits That Apply to Energy Recovery Units After February 7, 2018

Air Pollutant	Emission Limitation ^a		Averaging Time	Performance Test Methods
	Liquid/Gas	Solids		
Cadmium	0.023 milligrams per dry standard cubic meter.	Biomass - 0.0014 milligrams per dry standard cubic meter. ^c Coal - 0.0095 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of 40 CFR 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 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. ^c Coal - 5.1 nanograms per dry standard cubic meter. ^c	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 23 at 40 CFR Part 60, Appendix A-7).
Dioxins/furans (toxic equivalency basis)	0.32 nanograms per dry standard cubic meter.	Biomass - 0.12 nanograms per dry standard cubic meter. Coal - 0.075 nanograms per dry standard cubic meter. ^c	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 23 of 40 CFR Part 60, Appendix A-7).
Hydrogen chloride	14 parts per million by dry volume.	Biomass- 0.20 parts per million dry volume. Coal - 13 parts per million dry volume.	3-run average (for Method 26, collect a minimum of 120 liters; for Method 26A, collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 26 or 26A of 40 CFR Part 60, Appendix A-8).
Lead	0.096 milligrams per dry standard cubic meter.	Biomass - 0.014 milligrams per dry standard cubic meter. ^c Coal - 0.14 milligrams per dry standard cubic meter. ^c	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of 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 - 0.016 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 40 CFR Part 60, Appendix A.	Performance test (Method 29 or 30B of 40 CFR Part 60, Appendix A-8) or ASTM D6784-02 (Reapproved 2008) ^d .
Oxides of nitrogen	76 parts per million by dry volume.	Biomass - 290 parts per million dry volume. Coal - 340 parts per million dry volume.	3-run average (for Method 7E, 1 hour minimum sample time per run).	Performance test (Method 7 or 7E of 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 - 160 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 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 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 - 650 parts per million dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 6 or 6C of 40 CFR 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 40 CFR 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 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.y if all of the other provision of subdivision 9.9.y 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.

^dIncorporated by reference, see 40 CFR §60.17.

TABLE 18-8C
Emission Limits That Apply to Waste-Burning Kilns After February 7, 2018^a

Air Pollutant	Emission Limit^b	Averaging Time	Performance Test Methods
Cadmium	0.0014 milligrams per dry standard cubic meter. ^c	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of 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. ^c	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 23 at 40 CFR Part 60, Appendix A-7).
Dioxins/furans (toxic equivalency basis)	0.075 nanograms per dry standard cubic meter. ^c	3-run average (collect a minimum volume of 4 dry standard cubic meters).	Performance test (Method 23 of 40 CFR Part 60, Appendix A-7).
Hydrogen chloride	3.0 parts per million dry volume. ^c	3-run average (collect a minimum volume of 1 dry standard cubic meter) or 30-day rolling average if HCL CEMS is being used.	Performance test (Method 321 at 40 CFR Part 63, Appendix A) or HCL CEMS if a wet scrubber is not used.
Lead	0.014 milligrams per dry standard cubic meter. ^c	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of 40 CFR Part 60, Appendix A-8).
Mercury	0.011 milligrams per dry standard cubic meter.	30-day rolling average.	Mercury CEMS or sorbent trap monitoring system (Performance Specification 12A or 12B, respectively, of Appendix B of 40 CFR Part 60.)
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 40 CFR Part 60, Appendix A-4).
Particulate matter filterable	4.6 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 40 CFR Part 60, Appendix A-4).

^aThe 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.

^bAll emission limitations are measured at 7 percent oxygen, dry basis at standard conditions. For dioxins/furans, you shall meet either the total mass basis limit or the toxic equivalency basis limit.

° 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.y if all of the other provision of subdivision 9.9.y 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.

TABLE 18-9C

Emission Limits That Apply to Small, Remote Incinerators After *Date to be Specified May 20, 2011* February 7, 2018^a

Air Pollutant	Emission Limit ^b	Averaging Time	Performance Test Methods
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 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)	4400 nanograms per dry standard cubic meter. ^b	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 23 at 40 CFR Part 60, Appendix A-7).
Dioxins/furans (toxic equivalency basis)	180 nanograms per dry standard cubic meter. ^b	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 23 of 40 CFR 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 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 meter).	Performance test (Method 29 of 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) ^c , 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). ^c
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 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 meter).	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 of 40 CFR 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 shall meet either the total mass basis limit or the toxic equivalency basis limit.

^c Incorporated by reference, see 40 CFR §60.17.