

2.2b Municipal Waste Combustors

2.2.1b Applicability

- (a) The affected facility to which this source category applies is each municipal waste combustor unit located within a municipal waste combustor plant with an aggregate municipal waste combustor plant capacity greater than 35 megagrams per day of municipal solid waste.
- (b) Any unit which has qualified for any exemption under the provisions of 60.50b(b) * through (i) and (m) is not subject to the provisions of this source category.
- (c) Air curtain incinerators, as defined under 60.51b *, located at a plant that meet the capacity specifications in paragraph (a) of this section and that combust a fuel stream composed of 100 percent yard waste are exempt from all provisions of this source category except the testing procedures under Section 2.2.2b(l), and the reporting and recordkeeping provisions under Section 2.2.3b(e) and (i).
- (d) Air curtain incinerators located at plants that meet the capacity specifications in paragraph (a) of this section combusting municipal solid waste other than yard waste are subject to all provisions of this source category.

2.2.2b Compliance and Performance Testing

- (a) The provisions for startup, shutdown, and malfunction are provided in paragraphs (a)(1) and (a)(2) of this section.
 - (1) Except as provided by 60.56b *, the applicable requirements apply at all times except during periods of startup, shutdown, or malfunction. Duration of startup, shutdown, or malfunction periods are limited to 3 hours per occurrence.
 - (i) The startup period commences when the affected facility begins the continuous burning of municipal solid waste and does not include any warmup period when the affected facility is combusting fossil fuel or other nonmunicipal solid waste fuel, and no municipal solid waste is being fed to the combustor.
 - (ii) Continuous burning is the continuous, semicontinuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate is not considered to be continuous burning.
 - (2) The opacity limits for air curtain incinerators specified in 60.56b * apply at all times as specified under 60.56b * except during periods of malfunction. Duration of malfunction periods are limited to 3 hours per occurrence.
- (b) The owner or operator of a small or large municipal waste combustor plant shall install, calibrate, maintain, and operate a continuous emission monitoring system

and record the output of the system for measuring the oxygen or carbon dioxide content of the flue gas at each location where carbon monoxide, sulfur dioxide, or nitrogen oxides emissions are monitored and shall comply with the test procedures and test methods specified in paragraphs (b)(1) through (b)(7) of this section.

- (1) The span value of the oxygen (or carbon dioxide) monitor shall be 25 percent oxygen (or 20 percent carbon dioxide).
 - (2) The monitor shall be installed, evaluated, and operated in accordance with Section 1.4.
 - (3) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the municipal waste combustor, as specified under Section 1.2.
 - (4) The monitor shall conform to Performance Specification 3 in Appendix B of this text except for section 2.3 (relative accuracy requirement).
 - (5) The quality assurance procedures of Appendix F of this text except for section 5.1.1 (relative accuracy test audit) shall apply to the monitor.
 - (6) 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 paragraphs (b)(6)(i) through (b)(6)(iv) of this section. This relationship may be reestablished during performance compliance tests.
 - (i) The emission rate correction factor and the integrated bag sampling and analysis procedure of Method 3B of Appendix A of this text shall be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.
 - (ii) Samples shall be taken for at least 30 minutes in each hour.
 - (iii) Each sample shall represent a 1-hour average.
 - (iv) A minimum of three runs shall be performed.
 - (7) As required by Section 2.2.3b(f)(5), the relationship between carbon dioxide and oxygen concentrations that is established in accordance with paragraph (b)(6) of this section shall be submitted as part of the initial performance test report.
- (c) The procedures and test methods specified in paragraphs (c)(1) through (c)(11) of this section shall be used to determine compliance with the emission limits for particulate matter and opacity under the applicable requirement.
- (1) Method 1 of Appendix A of this text shall be used to select sampling site and number of traverse points.
 - (2) Method 3B of Appendix A of this text shall be used for gas analysis.
 - (3) Method 5 of Appendix A of this text shall be used for determining

compliance with the particulate matter emission limit. The minimum sample volume shall be 1.7 cubic meters (60 dscf). The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160 °C (320 °F). An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 run.

- (4) An owner or operator 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 as specified in paragraph (b)(6) of this section.
- (5) As specified under Section 1.2, all performance tests shall consist of three test runs. The average of the particulate matter emission concentrations from the three test runs is used to determine compliance.
- (6) In accordance with paragraphs (c)(7) and (c)(11) of this section, Method 9 of Appendix A of this text and the procedures of Section 1.3 shall be used for determining compliance with the opacity limit except as provided under Section 1.3(e).
- (7) The owner or operator of an affected facility located within a small or large municipal waste combustor plant shall conduct an initial performance test for particulate matter emissions and opacity as required under Section 1.2.
- (8) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous opacity monitoring system for measuring opacity and shall follow the methods and procedures specified in paragraphs (c)(8)(i) through (c)(8)(iv) of this section.
 - (i) The output of the continuous opacity monitoring system shall be recorded on a 6-minute average basis.
 - (ii) The continuous opacity monitoring system shall be installed, evaluated, and operated in accordance with Section 1.4.
 - (iii) The continuous opacity monitoring system shall conform to Performance Specification 1 in Appendix B of this text.
 - (iv) The initial performance evaluation shall be completed no later than 180 days after the date of the initial startup of the municipal waste combustor unit, as specified under Section 1.2.
- (9) Following the date that the initial performance test for particulate matter is completed or is required to be completed under Section 1.2 for an affected facility located within a large municipal waste combustor plant, the owner or operator shall conduct a performance test for particulate matter on an annual basis (no more than 12 calendar months following the previous performance test).
- (10) Following the date that the initial performance test for particulate matter is completed or is required to be completed under Section 1.2 for an affected

facility located within a small municipal waste combustor plant, the owner or operator shall conduct a performance test for particulate matter on an annual basis (no more than 12 calendar months following the previous performance test). If all performance tests over a 3-year period indicate compliance with the particulate matter emission limit, the owner or operator may elect not to conduct a performance test for the subsequent 2 years. At a minimum, a performance test for particulate matter shall be conducted every third year (no more than 36 months following the previous performance test) at a small municipal waste combustor plant. If a performance test conducted every third year indicates compliance with the particulate matter emission limit, the owner or operator may elect not to conduct a performance test for an additional 2 years. If any performance test indicates noncompliance with the particulate matter emission limit, performance tests shall be required annually until all annual performance tests over a 3-year period indicate compliance with the particulate matter emission limit.

- (11) Following the date that the initial performance test for opacity is completed or is required to be completed under Section 1.2 for an affected facility located within a small or large municipal waste combustor plant, the owner or operator shall conduct a performance test for opacity on an annual basis (no more than 12 calendar months following the previous performance test) using the test method specified in paragraph (c)(6) of this section.
- (d) The procedures and test methods specified in paragraphs (d)(1) and (d)(2) of this section shall be used to determine compliance with the emission limits for cadmium, lead, and mercury under the applicable requirement.
 - (1) The procedures and test methods specified in paragraphs (d)(1)(i) through (d)(1)(ix) of this section shall be used to determine compliance with the emission limits for cadmium and lead under the applicable requirement.
 - (i) Method 1 of Appendix A of this text shall be used for determining the location and number of sampling points.
 - (ii) Method 3B of Appendix A of this text shall be used for flue gas analysis.
 - (iii) Method 29 of Appendix A of this text shall be used for determining compliance with the cadmium and lead emission limits.
 - (iv) An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 29 test run for cadmium and lead required under paragraph (d)(1)(iii) of this section.
 - (v) An owner or operator may request that compliance with the cadmium or lead 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 as specified in paragraph (b)(6) of this section.
 - (vi) All performance tests shall consist of a minimum of three test runs

conducted under representative full load operating conditions. The average of the cadmium or lead emission concentrations from three test runs or more shall be used to determine compliance.

- (vii) Following the date of the initial performance test or the date on which the initial performance test is required to be completed under Section 1.2, the owner or operator of an affected facility located within a large municipal waste combustor plant shall conduct a performance test for compliance with the emission limits for cadmium and lead on an annual basis (no more than 12 calendar months following the previous performance test).
- (viii) Following the date that the initial performance test for cadmium is completed or is required to be completed under Section 1.2 for an affected facility located within a small municipal waste combustor plant, the owner or operator shall conduct a performance test for cadmium emissions on an annual basis (no more than 12 calendar months following the previous performance test). If all performance tests over a 3-year period indicate compliance with the cadmium emission limit, the owner or operator may elect not to conduct a performance test for the subsequent 2 years. At a minimum, a performance test for cadmium shall be conducted every third year (no more than 36 months following the previous performance test) at a small municipal waste combustor plant. If a performance test conducted every third year indicates compliance with the cadmium emission limit, the owner or operator may elect not to conduct a performance test for an additional 2 years. If any performance test indicates noncompliance with the cadmium emission limit, performance tests shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the cadmium emission limit.
- (ix) Following the date that the initial performance test for lead is completed or is required to be completed under Section 1.2 for an affected facility located within a small municipal waste combustor plant, the owner or operator shall conduct a performance test for lead emissions on an annual basis (no more than 12 calendar months following the previous performance test). If all three performance tests over a 3-year period indicate compliance with the lead emission limit, the owner or operator may elect not to conduct a performance test for the subsequent 2 years. At a minimum, a performance test for lead shall be conducted every third year (no more than 36 months following the previous performance test) at a small municipal waste combustor plant. If a performance test conducted every third year indicates compliance with the lead emission limit, the owner or operator may elect not to conduct a performance test for an additional 2 years. If any performance test indicates noncompliance with the lead emission limit, performance tests shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the lead emission limit.

- (2) The procedures and test methods specified in paragraphs (d)(2)(i) through

(d)(2)(xi) of this section shall be used to determine compliance with the mercury emission limit under the applicable requirement.

- (i) Method 1 of Appendix A of this text shall be used for determining the location and number of sampling points.
- (ii) Method 3B of Appendix A of this text shall be used for flue gas analysis.
- (iii) Method 29 of Appendix A of this text shall be used to determine the mercury emission concentration. The minimum sample volume when using Method 29 for mercury shall be 1.7 cubic meters (60 dscf).
- (iv) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 29 test run for mercury required under paragraph (d)(2)(iii) of this section.
- (v) The percent reduction in the potential mercury emissions ($\%PHg$) is computed using equation 1:

$$(\%PHg) = \left(\frac{E_i - E_o}{E_i} \right) \times 100 \quad (1)$$

where:

$\%PHg$ = percent reduction of the potential mercury emissions achieved.

E_i = potential mercury emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis).

E_o = controlled mercury emission concentration measured at the mercury control device outlet, corrected to 7 percent oxygen (dry basis).

- (vi) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the mercury emission concentrations or percent reductions from three test runs or more is used to determine compliance.
- (vii) An owner or operator may request that compliance with the mercury 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 as specified in paragraph (b)(6) of this section.
- (viii) The owner or operator of an affected facility located within a small or large municipal waste combustor plant shall conduct an initial

performance test for mercury emissions as required under Section 1.2.

- (ix) Following the date that the initial performance test for mercury is completed or is required to be completed under Section 1.2, the owner or operator of an affected facility located within a large municipal waste combustor plant shall conduct a performance test for mercury emissions on an annual basis (no more than 12 calendar months from the previous performance test).
 - (x) Following the date that the initial performance test for mercury is completed or is required to be completed under Section 1.2 for an affected facility located within a small municipal waste combustor plant, the owner or operator shall conduct a performance test for mercury emissions on an annual basis (no more than 12 calendar months following the previous performance test). If all three performance tests over a 3-year period indicate compliance with the mercury emission limit, the owner or operator may elect not to conduct a performance test for the subsequent 2 years. At a minimum, a performance test for mercury shall be conducted every third year (no more than 36 months following the previous performance test) at a small municipal waste combustor plant. If a performance test conducted every third year indicates compliance with the mercury emission limit, the owner or operator may elect not to conduct a performance test for an additional 2 years. If any performance test indicates noncompliance with the mercury emission limit, performance tests shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the mercury emission limit.
 - (xi) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit shall follow the procedures specified in paragraph (m) of this section for measuring and calculating carbon usage.
- (e) The procedures and test methods specified in paragraphs (e)(1) through (e)(14) of this section shall be used for determining compliance with the sulfur dioxide emission limit under the applicable requirement.
- (1) Section 4.3 of Method 19 of Appendix A of this text shall be used to calculate the daily geometric average sulfur dioxide emission concentration.
 - (2) Section 5.4 of Method 19 of Appendix A of this text shall be used to determine the daily geometric average percent reduction in the potential sulfur dioxide emission concentration.
 - (3) An owner or operator may request that compliance with the sulfur dioxide 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 as specified in paragraph (b)(6) of this section.
 - (4) The owner or operator of an affected facility shall conduct an initial

performance test for sulfur dioxide emissions as required under Section 1.2.

Compliance with the sulfur dioxide emission limit (concentration or percent reduction) shall be determined by using the continuous emission monitoring system specified in paragraph (e)(5) of this section to measure sulfur dioxide and calculating a 24-hour daily geometric average emission concentration or a 24-hour daily geometric average percent reduction using Method 19, sections 4.3 and 5.4, as applicable.

- (5) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system.
- (6) Following the date that the initial performance test for sulfur dioxide is completed or is required to be completed under Section 1.2, compliance with the sulfur dioxide emission limit shall be determined based on the 24-hour daily geometric average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data if compliance is based on an emission concentration, or continuous emission monitoring system inlet and outlet data if compliance is based on a percent reduction.
- (7) At a minimum, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs (e)(7)(i) and (e)(7)(ii) for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.
 - (i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
 - (ii) Each sulfur dioxide 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
- (8) The 1-hour arithmetic averages required under paragraph (e)(6) of this section shall be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 24-hour daily geometric average emission concentrations and daily geometric average emission percent reductions. The 1-hour arithmetic averages shall be calculated using the data points required under Section 1.4(e)(2).
- (9) All valid continuous emission monitoring system data shall be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of paragraph (e)(7) of this section are not met.
- (10) The procedures under Section 1.4 shall be followed for installation, evaluation, and operation of the continuous emission monitoring system.
- (11) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the municipal waste combustor

as specified under Section 1.2.

- (12) The continuous emission monitoring system shall be operated according to Performance Specification 2 in Appendix B of this text.
 - (i) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 in Appendix B of this text, sulfur dioxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (e)(12)(i)(A) and (e)(12)(i)(B) of this section.
 - (A) For sulfur dioxide, Method 6, 6A, or 6C of Appendix A of this text shall be used.
 - (B) For oxygen (or carbon dioxide), Method 3A or 3B of Appendix A of this text shall be used.
 - (ii) The span value of the continuous emissions monitoring system at the inlet to the sulfur dioxide control device shall be 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit. The span value of the continuous emission monitoring system at the outlet of the sulfur dioxide control device shall be 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit.
- (13) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 in Appendix F of this text.
- (14) When sulfur dioxide emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Director or Method 19 of Appendix A of this text to provide, as necessary, valid emissions data for a minimum of 75 percent of the hours per day that the affected facility is operated and combusting municipal solid waste for 90 percent of the days per calendar quarter that the affected facility is operated and combusting municipal solid waste.
- (f) The procedures and test methods specified in paragraphs (f)(1) through (f)(8) of this section shall be used for determining compliance with the hydrogen chloride emission limit under the applicable requirement.
 - (1) Method 26 or 26A of Appendix A of this text, as applicable, shall be used to determine the hydrogen chloride emission concentration. The minimum sampling time for shall be 1 hour.
 - (2) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each test run for hydrogen chloride required by paragraph (f)(1) of this section.

- (3) The percent reduction in potential hydrogen chloride emissions (% P_{HCl}) is computed using equation 2:

$$(\%PHCl) = \left(\frac{E_i - E_o}{E_i} \right) \times 100 \quad (2)$$

where:

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

E_i = potential hydrogen chloride emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis).

E_o = controlled hydrogen chloride emission concentration measured at the control device outlet, corrected to 7 percent oxygen (dry basis).

- (4) An owner or operator may request that compliance with the hydrogen chloride 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 as specified in paragraph (b)(6) of this section.
- (5) As specified under Section 1.2, all performance tests shall consist of three test runs. The average of the hydrogen chloride emission concentrations or percent reductions from the three test runs is used to determine compliance.
- (6) The owner or operator of an affected facility shall conduct an initial performance test for hydrogen chloride as required under Section 1.2.
- (7) Following the date that the initial performance test for hydrogen chloride is completed or is required to be completed under Section 1.2, the owner or operator of an affected facility located within a large municipal waste combustor plant shall conduct a performance test for hydrogen chloride emissions on an annual basis (no more than 12 calendar months following the previous performance test).
- (8) Following the date that the initial performance test for hydrogen chloride is completed or is required to be completed under Section 1.2, the owner or operator of an affected facility located within a small municipal waste combustor plant shall conduct a performance test for hydrogen chloride emissions on an annual basis (no more than 12 calendar months following the previous performance test). If all performance tests over a 3-year period indicate compliance with the hydrogen chloride emission limit, the owner or operator may elect not to conduct a performance test for the subsequent 2 years. At a minimum, a performance test for hydrogen chloride shall be conducted every third year (no more than 36 months following the previous performance test) at a small municipal waste combustor plant. If a performance test conducted every third year indicates compliance with the hydrogen chloride emission limit, the owner or operator

may elect not to conduct a performance test for an additional 2 years. If any performance test indicates noncompliance with the hydrogen chloride emission limit, performance tests shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the hydrogen chloride emission limit.

- (g) The procedures and test methods specified in paragraphs (g)(1) through (g)(9) of this section shall be used to determine compliance with the limits for dioxin/furan emissions under the applicable requirement.
- (1) Method 1 of Appendix A of this text shall be used for determining the location and number of sampling points.
 - (2) Method 3B of Appendix A of this text shall be used for flue gas analysis.
 - (3) Method 23 of Appendix A of this text shall be used for determining the dioxin/furan emission concentration.
 - (i) The minimum sample time shall be 4 hours per test run.
 - (ii) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 23 test run for dioxins/furans.
 - (4) The owner or operator of an affected facility shall conduct an initial performance test for dioxin/furan emissions in accordance with paragraph (g)(3) of this section, as required under Section 1.2.
 - (5) Following the date that the initial performance test for dioxins/furans is completed or is required to be completed under Section 1.2, the owner or operator of an affected facility located within small and large municipal waste combustor plants shall conduct performance tests for dioxin/furan emissions in accordance with paragraph (g)(3) of this section, according to one of the schedules specified in paragraphs (g)(5)(i) through (g)(5)(iii) of this section.
 - (i) For affected facilities located within small and large municipal waste combustor plants, performance tests shall be conducted on an annual basis (no more than 12 calendar months following the previous performance test).
 - (ii) For affected facilities located within small municipal waste combustor plants where all performance tests for an affected facility over a 3-year period indicate compliance with the dioxin/furan emission limit, the owner or operator may elect not to conduct a performance test for the subsequent 2 years for that affected facility. At a minimum, a performance test for dioxin/furan emissions shall be conducted every third year (no more than 36 months following the previous performance test) for each affected facility. If a performance test conducted every third year indicates compliance with the dioxin/furan emission limit, the owner or operator may elect not to conduct a performance test on the affected facility for an additional 2 years. If any performance test indicates noncompliance with the dioxin/furan emission limit,

performance tests shall be conducted annually until all annual performance tests for the affected facility over a 3-year period indicate compliance with the dioxin/furan emission limit.

- (iii) For affected facilities located within small or large municipal waste combustor plants where all performance tests for all affected facilities over a 2-year period indicate that dioxin/furan emissions are less than or equal to 7 nanograms per dry standard cubic meter (total mass) for all affected facilities located within a municipal waste combustor plant, the owner or operator of the municipal waste combustor plant may elect to conduct annual performance tests for one affected facility (i.e., unit) per year at the municipal waste combustor plant. At a minimum, a performance test for dioxin/furan emissions shall be conducted annually (no more than 12 months following the previous performance test) for one affected facility at the municipal waste combustor plant. Each year a different affected facility at the municipal waste combustor plant shall be tested, and the affected facilities at the plant shall be tested in sequence (e.g., unit 1, unit 2, unit 3, as applicable). If each annual performance test continues to indicate a dioxin/furan emission level less than or equal to 7 nanograms per dry standard cubic meter (total mass), the owner or operator may continue conducting a performance test on only one affected facility per year. If any annual performance test indicates a dioxin/furan emission level greater than 7 nanograms per dry standard cubic meter (total mass), performance tests thereafter shall be conducted annually on all affected facilities at the plant until and unless all annual performance tests for all affected facilities at the plant over a 2-year period indicate a dioxin/furan emission level less than or equal to 7 nanograms per dry standard cubic meter (total mass).
 - (A) For affected facilities at large municipal waste combustor plants not subject to 40CFR60 Subpart Eb⁺, that achieve a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter total mass, corrected to 7 percent oxygen, may use the dioxin/furan testing schedule specified in paragraph (g)(5)(iii) of this section.
 - (B) For affected facilities at small municipal waste combustor plants not subject to 40CFR60 Subpart Eb⁺, that achieve a dioxin/furan emission level less than or equal to 30 nanograms per dry standard cubic meter total mass, corrected to 7 percent oxygen, may use the dioxin/furan testing schedule specified in paragraph (g)(5)(iii) of this section.
- (6) The owner or operator of an affected facility that selects to follow the performance testing schedule specified in paragraph (g)(5)(iii) of this section shall follow the procedures specified in Section 2.2.3b(g)(4) for reporting the selection of this schedule.
- (7) The owner or operator of an affected facility where activated carbon is used

to comply with the dioxin/furan emission limits specified in the applicable requirement or the dioxin/furan emission level specified in paragraph (g)(5)(iii) of this section shall follow the procedures specified in paragraph (m) of this section for measuring and calculating the carbon usage rate.

- (8) An owner or operator may request that compliance with the dioxin/furan 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 as specified in paragraph (b)(6) of this section.
 - (9) As specified under Section 1.2, all performance tests shall consist of three test runs. The average of the dioxin/furan emission concentrations from the three test runs is used to determine compliance.
- (h) The procedures and test methods specified in paragraphs (h)(1) through (h)(12) of this section shall be used to determine compliance with the nitrogen oxides emission limit for municipal waste combustors located at large municipal waste combustor plants under the applicable requirement (no nitrogen oxides performance tests are required for affected facilities located within small municipal waste combustor plants).
- (1) Section 4.1 of Method 19 of Appendix A of this text shall be used for determining the daily arithmetic average nitrogen oxides emission concentration.
 - (2) An owner or operator may request that compliance with the nitrogen oxides 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 as specified in paragraph (b)(6) of this section.
 - (3) The owner or operator of an affected facility located within a large municipal waste combustor plant subject to the nitrogen oxides limit under the applicable requirement shall conduct an initial performance test for nitrogen oxides as required under Section 1.2. Compliance with the nitrogen oxides emission limit shall be determined by using the continuous emission monitoring system specified in paragraph (h)(4) of this section for measuring nitrogen oxides and calculating a 24-hour daily arithmetic average emission concentration using Method 19, section 4.1.
 - (4) The owner or operator of an affected facility located within a large municipal waste combustor plant subject to the nitrogen oxides emission limit under the applicable requirement shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring nitrogen oxides discharged to the atmosphere, and record the output of the system.
 - (5) Following the date that the initial performance test for nitrogen oxides is completed or is required to be completed under Section 1.2, compliance with the emission limit for nitrogen oxides required under the applicable requirement shall be determined based on the 24-hour daily arithmetic average of the hourly emission concentrations using continuous emission

monitoring system outlet data.

- (6) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs (h)(6)(i) and (h)(6)(ii) of this section for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.
 - (i) At least 2 data points per hour shall be used to calculate each 1-hour arithmetic average.
 - (ii) Each nitrogen oxides 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
- (7) The 1-hour arithmetic averages required by paragraph (h)(5) of this section shall be expressed in parts per million by volume (dry basis) and used to calculate the 24-hour daily arithmetic average concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under Section 1.4(e)(2).
- (8) All valid continuous emission monitoring system data must be used in calculating emission averages even if the minimum continuous emission monitoring system data requirements of paragraph (h)(6) of this section are not met.
- (9) The procedures under Section 1.4 shall be followed for installation, evaluation, and operation of the continuous emission monitoring system. The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the municipal waste combustor unit, as specified under Section 1.2.
- (10) The owner or operator shall operate the continuous emission monitoring system according to Performance Specification 2 in Appendix B of this text and shall follow the procedures and methods specified in paragraphs (h)(10)(i) and (h)(10)(ii) of this section.
 - (i) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 of Appendix B of this text, nitrogen oxides and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (h)(10)(i)(A) and (h)(10)(i)(B) of this section.
 - (A) For nitrogen oxides, Method 7, 7A, 7C, 7D, or 7E of Appendix A of this text shall be used.
 - (B) For oxygen (or carbon dioxide), Method 3A or 3B of Appendix A of this text shall be used.
 - (ii) The span value of the continuous emission monitoring system shall

be 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of the municipal waste combustor unit.

- (11) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 in Appendix F of this text.
 - (12) When nitrogen oxides continuous emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by the Director or Method 19 of Appendix A of this text to provide, as necessary, valid emissions data for a minimum of 75 percent of the hours per day for 90 percent of the days per calendar quarter the unit is operated and combusting municipal solid waste.
- (i) The procedures specified in paragraphs (i)(1) through (i)(12) of this section shall be used for determining compliance with the operating requirements under the applicable requirement.
- (1) Compliance with the carbon monoxide emission limits in the applicable requirement shall be determined using a 4-hour block arithmetic average for all types of affected facilities except mass burn rotary waterwall municipal waste combustors and refuse-derived fuel stokers.
 - (2) For affected mass burn rotary waterwall municipal waste combustors and refuse-derived fuel stokers, compliance with the carbon monoxide emission limits in the applicable requirement shall be determined using a 24-hour daily arithmetic average.
 - (3) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring carbon monoxide at the combustor outlet and record the output of the system and shall follow the procedures and methods specified in paragraphs (i)(3)(i) through (i)(3)(iii) of this section.
 - (i) The continuous emission monitoring system shall be operated according to Performance Specification 4A in Appendix B of this text.
 - (ii) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 4A in Appendix B of this text, carbon monoxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (i)(3)(ii)(A) and (i)(3)(ii)(B) of this section.
 - (A) For carbon monoxide, Method 10, 10A, or 10B of Appendix A of this text shall be used.
 - (B) For oxygen (or carbon dioxide), Method 3A or 3B of Appendix A of this text shall be used.
 - (iii) The span value of the continuous emission monitoring system shall

be 125 percent of the maximum estimated hourly potential carbon monoxide emissions of the municipal waste combustor unit.

- (4) The 4-hour block and 24-hour daily arithmetic averages specified in paragraphs (i)(1) and (i)(2) of this section shall be calculated from 1-hour arithmetic averages expressed in parts per million by volume corrected to 7 percent oxygen (dry basis). The 1-hour arithmetic averages shall be calculated using the data points generated by the continuous emission monitoring system. At least two data points shall be used to calculate each 1-hour arithmetic average.
- (5) An owner or operator may request that compliance with the carbon monoxide 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 as specified in paragraph (b)(6) of this section.
- (6) The procedures specified in paragraphs (i)(6)(i) through (i)(6)(v) of this section shall be used to determine compliance with load level requirements under the applicable requirement.
 - (i) The owner or operator of an affected facility with steam generation capability shall install, calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; measure steam (or feedwater) flow in kilograms per hour (or pounds per hour) on a continuous basis; and record the output of the monitor. Steam (or feedwater) flow shall be calculated in 4-hour block arithmetic averages.
 - (ii) The method included in the "American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1 -- 1964 (R1991)" section 4 (incorporated by reference, see Section 1.6) shall be used for calculating the steam (or feedwater) flow required under paragraph (i)(6)(i) of this section. The recommendations in "American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th edition (1971)," chapter 4 (incorporated by reference -- see Section 1.6) shall be followed for design, construction, installation, calibration, and use of nozzles and orifices except as specified in (i)(6)(iii) of this section.
 - (iii) Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed.
 - (iv) All signal conversion elements associated with steam (or feedwater flow) measurements must be calibrated according to the manufacturer's instructions before each dioxin/furan performance test, and at least once per year.
 - (v) The owner or operator of an affected facility without steam generation capability shall meet the requirements specified in paragraph (i)(6)(v)(A) of this section.

(A) [Reserved]

- (7) To determine compliance with the maximum particulate matter control device temperature requirements under the applicable requirement, the owner or operator of an affected facility shall install, calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each particulate matter control device utilized by the affected facility. Temperature shall be calculated in 4-hour block arithmetic averages.
- (8) The maximum demonstrated municipal waste combustor unit load shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in the applicable requirement is achieved. The maximum demonstrated municipal waste combustor unit load shall be the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved.
- (9) For each particulate matter control device employed at the affected facility, the maximum demonstrated particulate matter control device temperature shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in the applicable requirement is achieved. The maximum demonstrated particulate matter control device temperature shall be the highest 4-hour arithmetic average temperature achieved at the particulate matter control device inlet during four consecutive hours during the most recent test during which compliance with the dioxin/furan limit was achieved.
- (10) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs (i)(10)(i) and (i)(10)(ii) of this section for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.
 - (i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
 - (ii) At a minimum, each carbon monoxide 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
- (11) All valid continuous emission monitoring system data must be used in calculating the parameters specified under paragraph (i) of this section even if the minimum data requirements of paragraph (i)(10) of this section are not met. When carbon monoxide continuous emission data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by the Director or Method 10 of Appendix A of this text to provide, as necessary, the minimum valid emission data.

- (12) Quarterly accuracy determinations and daily calibration drift tests for the carbon monoxide continuous emission monitoring system shall be performed in accordance with Procedure 1 in Appendix F of this text.
- (j) The procedures specified in paragraphs (j)(1) and (j)(2) of this section shall be used for calculating municipal waste combustor unit capacity as defined under 60.51b *.
 - (1) For municipal waste combustor units capable of combusting municipal solid waste continuously for a 24-hour period, municipal waste combustor unit capacity, in megagrams per day of municipal solid waste combusted, shall be calculated based on 24 hours of operation at the maximum charging rate. The maximum charging rate shall be determined as specified in paragraphs (j)(1)(i) and (j)(1)(ii) of this section as applicable.
 - (i) For combustors that are designed based on heat capacity, the maximum charging rate shall be calculated based on the maximum design heat input capacity of the unit and a heating value of 10,500 kilojoules per kilogram.
 - (ii) For combustors that are not designed based on heat capacity, the maximum charging rate shall be the maximum design charging rate.
 - (2) For batch feed municipal waste combustor units, municipal waste combustor unit capacity, in megagrams per day of municipal solid waste combusted, shall be calculated as the maximum design amount of municipal solid waste that can be charged per batch multiplied by the maximum number of batches that could be processed in a 24-hour period. The maximum number of batches that could be processed in a 24-hour period is calculated as 24 hours divided by the design number of hours required to process one batch of municipal solid waste, and may include fractional batches (e.g., if one batch requires 16 hours, then 24/16, or 1.5 batches, could be combusted in a 24-hour period). For batch combustors that are designed based on heat capacity, the design heating value of 10,500 kilojoules per kilogram for all municipal solid waste shall be used in calculating the municipal waste combustor unit capacity in megagrams per day of municipal solid waste.
- (k) The procedures specified in paragraphs (k)(1) through (k)(3) of this section shall be used for determining compliance with the fugitive ash emission limit under the applicable requirement.
 - (1) Method 22 of Appendix A of this text shall be used for determining compliance with the fugitive ash emission limit under the applicable requirement. The minimum observation time shall be a series of three 1-hour observations. The observation period shall include times when the facility is transferring ash from the municipal waste combustor unit to the area where ash is stored or loaded into containers or trucks.
 - (2) The average duration of visible emissions per hour shall be calculated from the three 1-hour observations. The average shall be used to determine compliance with the applicable requirement.

- (3) The owner or operator of an affected facility shall conduct an initial performance test for fugitive ash emissions as required under Section 1.2.
- (l) The procedures specified in paragraphs (l)(1) through (l)(3) of this section shall be used to determine compliance with the opacity limit for air curtain incinerators under the applicable requirement.
 - (1) Method 9 of Appendix A of this text and the procedures of Section 1.3 shall be used for determining compliance with the opacity limit.
 - (2) The owner or operator of the air curtain incinerator shall conduct an initial performance test for opacity as required under Section 1.2.
 - (3) Following the date that the initial performance test is completed or is required to be completed under Section 1.2, the owner or operator of the air curtain incinerator shall conduct a performance test for opacity on an annual basis (no more than 12 calendar months following the previous performance test).
- (m) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit or the dioxin/furan emission limits under the applicable requirements, or the dioxin/furan emission level specified in paragraph (g)(5)(iii) of this section shall follow the procedures specified in paragraphs (m)(1) through (m)(3) of this section.
 - (1) During the performance tests for dioxins/furans and mercury, as applicable, the owner or operator shall estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed, as specified in paragraphs (m)(1)(i) and (m)(1)(ii) of this section.
 - (i) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for mercury emissions and each subsequent performance test for mercury emissions.
 - (ii) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions.
 - (2) During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate (e.g., screw feeder setting) must equal or exceed the level(s) documented during the performance tests specified under paragraphs (m)(1)(i) and (m)(1)(ii) of this section.
 - (3) The owner or operator shall estimate the total carbon usage of the plant (kilograms or pounds) for each calendar quarter by two independent methods, according to the procedures in paragraphs (m)(3)(i) and (m)(3)(ii) of this section.

- (i) The weight of carbon delivered to the plant.
- (ii) Estimate the average carbon mass feed rate in kilograms per hour or pounds per hour for each hour of operation for each affected facility based on the parameters specified under paragraph (m)(1) of this section, and sum the results for all affected facilities at the plant for the total number of hours of operation during the calendar quarter.

2.2.3b Reporting and Recordkeeping Requirements

(a)-(c) [Reserved]

(d) The owner or operator of an affected facility located within a small or large municipal waste combustor plant and subject to the standards under the applicable requirements shall maintain records of the information specified in paragraphs (d)(1) through (d)(15) of this section, as applicable, for each affected facility for a period of at least 5 years.

- (1) The calendar date of each record.
- (2) The emission concentrations and parameters measured using continuous monitoring systems as specified under paragraphs (d)(2)(i) and (d)(2)(ii) of this section.
 - (i) The measurements specified in paragraphs (d)(2)(i)(A) through (d)(2)(i)(D) of this section shall be recorded and be available for submittal to the Director or review onsite by an inspector.
 - (A) All 6-minute average opacity levels as specified under Section 2.2.2b(c).
 - (B) All 1-hour average sulfur dioxide emission concentrations as specified under Section 2.2.2b(e).
 - (C) All 1-hour average nitrogen oxides emission concentrations as specified under Section 2.2.2b(h) (large municipal waste combustor plants only).
 - (D) All 1-hour average carbon monoxide emission concentrations, municipal waste combustor unit load measurements, and particulate matter control device inlet temperatures as specified under Section 2.2.2b(i).
 - (ii) The average concentrations and percent reductions, as applicable, specified in paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(D) of this section shall be computed and recorded, and shall be available for submittal to the Director or review onsite by an inspector.
 - (A) All 24-hour daily geometric average sulfur dioxide emission concentrations and all 24-hour daily geometric average percent reductions in sulfur dioxide emissions as specified

under Section 2.2.2b(e).

- (B) All 24-hour daily arithmetic average nitrogen oxides emission concentrations as specified under Section 2.2.2b(h) (large municipal waste combustor plants only).
 - (C) All 4-hour block or 24-hour daily arithmetic average carbon monoxide emission concentrations, as applicable, as specified under Section 2.2.2b(i).
 - (D) All 4-hour block arithmetic average municipal waste combustor unit load levels and particulate matter control device inlet temperatures as specified under Section 2.2.2b(i).
- (3) Identification of the calendar dates when any of the average emission concentrations, percent reductions, or operating parameters recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(E) of this section, or the opacity levels recorded under paragraph (d)(2)(i)(A) of this section are above the applicable limits, with reasons for such exceedances and a description of corrective actions taken.
- (4) For affected facilities that apply activated carbon for mercury or dioxin/furan control, the records specified in paragraphs (d)(4)(i) through (d)(4)(v) of this section.
- (i) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as required under Section 2.2.2b(m)(1)(i) during the initial mercury performance test and all subsequent annual performance tests, with supporting calculations.
 - (ii) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as required under Section 2.2.2b(m)(1)(ii) during the initial dioxin/furan performance test and all subsequent annual performance tests, with supporting calculations.
 - (iii) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated for each hour of operation as required under Section 2.2.2b(m)(3)(ii), with supporting calculations.
 - (iv) The total carbon usage for each calendar quarter estimated as specified by Section 2.2.2b(m)(3), with supporting calculations.
 - (v) Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed).
- (5) [Reserved]
- (6) Identification of the calendar dates for which the minimum number of hours of any of the data specified in paragraphs (d)(6)(i) through (d)(6)(v) of this section have not been obtained including reasons for not obtaining

sufficient data and a description of corrective actions taken.

- (i) Sulfur dioxide emissions data;
 - (ii) Nitrogen oxides emissions data (large municipal waste combustor plants only);
 - (iii) Carbon monoxide emissions data;
 - (iv) Municipal waste combustor unit load data; and
 - (v) Particulate matter control device temperature data.
- (7) Identification of each occurrence that sulfur dioxide emissions data, nitrogen oxides emissions data (large municipal waste combustors only), or operational data (i.e., carbon monoxide emissions, unit load, and particulate matter control device temperature) have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.
- (8) The results of daily drift tests and quarterly accuracy determinations for sulfur dioxide, nitrogen oxides (large municipal waste combustors only), and carbon monoxide continuous emission monitoring systems, as required under Procedure 1 in Appendix F of this text.
- (9) The test reports documenting the results of the initial performance test and all annual performance tests listed in paragraphs (d)(9)(i) and (d)(9)(ii) of this section shall be recorded along with supporting calculations.
- (i) The results of the initial performance test and all annual performance tests conducted to determine compliance with the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission limits.
 - (ii) For the initial dioxin/furan performance test and all subsequent dioxin/furan performance tests recorded under paragraph (d)(9)(i) of this section, the maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device temperature (for each particulate matter control device).
- (10)-(13) [Reserved]
- (14) For affected facilities that apply activated carbon for mercury or dioxin/furan control, identification of the calendar dates when the average carbon mass feed rates recorded under (d)(4)(iii) of this section were less than either of the hourly carbon feed rates estimated during performance tests for mercury or dioxin/furan emissions and recorded under paragraphs (d)(4)(i) and (d)(4)(ii) of this section, respectively, with reasons for such feed rates and a description of corrective actions taken.
- (15) For affected facilities that apply activated carbon for mercury or dioxin/furan control, identification of the calendar dates when the carbon

injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (e.g., screw feeder speed) recorded under paragraph (d)(4)(v) of this section are below the level(s) estimated during the performance tests as specified in Section 2.2.2b(m)(1)(i) and Section 2.2.2b(m)(1)(ii), with reasons for such occurrences and a description of corrective actions taken.

- (e) The owner or operator of an air curtain incinerator subject to the opacity limit under the applicable requirement shall maintain records of results of the initial opacity performance test and subsequent performance tests required by Section 2.2.2b(l) for a period of at least 5 years.
- (f) The owner or operator of an affected facility located within a small or large municipal waste combustor plant shall submit the information specified in paragraphs (f)(1) through (f)(6) of this section in the initial performance test report.
 - (1) The initial performance test data as recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(D) of this section for the initial performance test for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature.
 - (2) The test report documenting the initial performance test recorded under paragraph (d)(9) of this section for particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emissions.
 - (3) The performance evaluation of the continuous emission monitoring system using the applicable performance specifications in Appendix B of this text.
 - (4) The maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device inlet temperature(s) established during the initial dioxin/furan performance test as recorded under paragraph (d)(9) of this section.
 - (5) For affected facilities that apply activated carbon injection for mercury control, the owner or operator shall submit the average carbon mass feed rate recorded under paragraph (d)(4)(i) of this section.
 - (6) For those affected facilities that apply activated carbon injection for dioxin/furan control, the owner or operator shall submit the average carbon mass feed rate recorded under paragraph (d)(4)(ii) of this section.
- (g) Following the first year of municipal combustor operation, the owner or operator of an affected facility located within a small or large municipal waste combustor plant shall submit an annual report including the information specified in paragraphs (g)(1) through (g)(4) of this section, as applicable, no later than February 1 of each year following the calendar year in which the data were collected (once the unit is subject to permitting requirements under Title V of the Act, the owner or operator of an affected facility must submit these reports semiannually).
 - (1) A summary of data collected for all pollutants and parameters regulated under the applicable requirement, which includes the information specified

in paragraphs (g)(1)(i) through (g)(1)(v) of this section.

- (i) A list of the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels achieved during the performance tests recorded under paragraph (d)(9) of this section.
 - (ii) A list of the highest emission level recorded for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature based on the data recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(D) of this section.
 - (iii) List the highest opacity level measured, based on the data recorded under paragraph (d)(2)(i)(A) of this section.
 - (iv) The total number of days that the minimum number of hours of data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature data were not obtained based on the data recorded under paragraph (d)(6) of this section.
 - (v) The total number of hours that data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature were excluded from the calculation of average emission concentrations or parameters based on the data recorded under paragraph (d)(7) of this section.
- (2) The summary of data reported under paragraph (g)(1) of this section shall also provide the types of data specified in paragraphs (g)(1)(i) through (g)(1)(vi) of this section for the calendar year preceding the year being reported, in order to provide the Director with a summary of the performance of the affected facility over a 2-year period.
 - (3) The summary of data including the information specified in paragraphs (g)(1) and (g)(2) of this section shall highlight any emission or parameter levels that did not achieve the emission or parameter limits specified in the applicable requirement.
 - (4) A notification of intent to begin the reduced dioxin/furan performance testing schedule specified in Section 2.2.2b(g)(5)(iii) of this section during the following calendar year.
- (h) The owner or operator of an affected facility located within a small or large municipal waste combustor plant shall submit a semiannual report that includes the information specified in paragraphs (h)(1) through (h)(5) of this section for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit specified in the applicable requirement, according to the schedule specified under paragraph (h)(6) of this section.
 - (1) The semiannual report shall include information recorded under paragraph (d)(3) of this section for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device

inlet temperature, and opacity.

- (2) For each date recorded as required by paragraph (d)(3) of this section and reported as required by paragraph (h)(1) of this section, the semiannual report shall include the sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, or opacity data, as applicable, recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(D) and (d)(2)(i)(A) of this section, as applicable.
- (3) If the test reports recorded under paragraph (d)(9) of this section document any particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels that were above the applicable pollutant limits, the semiannual report shall include a copy of the test report documenting the emission levels and the corrective actions taken.
- (4) The semiannual report shall include the information recorded under paragraph (d)(15) of this section for the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate.
- (5) For each operating date reported as required by paragraph (h)(4) of this section, the semiannual report shall include the carbon feed rate data recorded under paragraph (d)(4)(iii) of this section.
- (6) Semiannual reports required by paragraph (h) of this section shall be submitted according to the schedule specified in paragraphs (h)(6)(i) and (h)(6)(ii) of this section.
 - (i) If the data reported in accordance with paragraphs (h)(1) through (h)(5) of this section were collected during the first calendar half, then the report shall be submitted by August 1 following the first calendar half.
 - (ii) If the data reported in accordance with paragraphs (h)(1) through (h)(5) of this section were collected during the second calendar half, then the report shall be submitted by February 1 following the second calendar half.
- (i) The owner or operator of an air curtain incinerator subject to the opacity limit under the applicable requirement shall submit the results of the initial opacity performance test and all subsequent annual performance tests recorded under paragraph (e) of this section. Annual performance tests shall be submitted by February 1 of the year following the year of the performance test.
- (j) All reports specified under paragraphs (f), (g), (h), and (i) of this section shall be submitted as a paper copy, postmarked on or before the submittal dates specified under these paragraphs, and maintained onsite as a paper copy for a period of 5 years.
- (k) All records specified under paragraphs (d) and (e) of this section shall be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Director.

- (l) If an owner or operator would prefer to select a different annual or semiannual date for submitting the periodic reports required by paragraphs (g), (h) and (i) of this section, then the dates may be changed by mutual agreement between the owner or operator and the Director according to the procedures specified in Section 1.9(c).

* Code of Federal Regulations, Title 40, Part 60.