CERTIFIED MAIL:

PERMITTEE

Stericycle, Inc. 254 W. Keene Road Apopka, FL 32703	Air Permit Number: 0950169-008-AC Permit Expires: December 31, 2014
Authorized Representative: Kelly Roberts Environmental Compliance Manager	Stericycle, Inc., Apopka Facility Title V Source Air Construction Permit Project Name: Add SNCR and scrubber

This is the final air construction permit, which authorizes modification of the existing hospital/medical/infectious waste incinerator air pollution control system to add a selective non-catalytic reduction system to reduce NOx emissions and a wet scrubber to reduce other air emissions. This permit also incorporates provisions of 40 CFR Part 60 Subpart Ce amended October 6, 2009 and Rule 62-204.800(9)(g), F.A.C. The proposed work will be conducted at Stericycle, Inc., Apopka Facility, which is a hospital/medical/infectious waste incinerator facility (Standard Industrial Classification Number 4953 for Refuse Systems). The facility is located in Orange County at 254 W. Keene Road in Apopka, Florida. The Latitude/Longitude coordinates are: 28°38'20" N Latitude / 81°31'23" W Longitude. As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

This final permit is organized by the following sections.
Section 1. General Information
Section 2. Administrative Requirements
Section 3. Emissions Unit Specific Conditions
Section 4. Appendices: Appendix A. Citation Formats and Glossary of Common Terms
Appendix B. General Conditions
Appendix C. Common Conditions
Appendix D. Common Testing Requirements
Appendix E. 40 CFR Part 60 Subpart Ce, Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators
Appendix F. 40 CFR Part 60 Subpart Ec, Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Orange County, Florida

_____ _____
Jodi D. Dittell (Date)
Environmental Program Supervisor
Air Quality Management
Orange County Environmental Protection Division

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit) was sent by certified or electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested before the close of business on _____ to the persons listed below.

Kelly Roberts, Environmental Compliance Manager, Stericycle, Inc. (kroberts@STERICYCLE.com)
William V. Straub, P.E., All4 Inc. (wstraub@all4inc.com)
Caroline Shine, Florida DEP (caroline.shine@dep.state.fl.us)
Jodi Dittell, EPD (jodi.dittell@ocfl.net)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

_____ _____
(Clerk) (Date)

FACILITY AND PROJECT DESCRIPTION

Existing Facility

The incinerator and air pollution control system are one emission unit (EU) as shown below.

Facility ID Number 0950169	
EU ID	**Emission Unit Description**
001	Hospital/Medical/Infectious Waste Incinerator The incinerator EU consists of a continuous hospital/medical/infectious waste incinerator and an air pollution control system. The incinerator is a Joy Manufacturing Model 2500-TESI constructed in 1991, with primary and secondary combustion chambers. The incinerator is equipped with temperature controls located at the exit of the primary and secondary chambers. The maximum charging rate is 1,900 lb/hr, and the minimum secondary chamber temperature is 1,800^{o}F. The incinerator has an afterburner in the secondary chamber followed by a duct with a bypass stack and a quench tower. The air pollution control system has a dry scrubbing system which includes a gas/solid mixer section, lime injection, carbon injection up to 15 pounds per hour, and a bag house to control emissions. The bag house collector material is P84 self-supported felt with singed finish, Tri-Loft fabric, or a material with equivalent or better performance characteristics.

The facility also includes a lime reagent storage silo equipped with a baghouse, a diesel powered fire pump and an emergency generator.

This facility is subject to:
1. Rule 62-204.800(9)(d), Hospital/Medical/Infectious Waste Incinerators
2. Rule 62-296.401(4), F.A.C., Biological Waste Incinerators
3. 40 CFR Part 60 Subpart Ce, Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators, promulgated 1997.
4. Applicable sections of 40 CFR Part 60 Subpart Ec, Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996.

Proposed Project

NSPS 40 CFR Part 60 Subpart Ce was amended October 6, 2009. The amended Subpart Ce was adopted by Rule 62-204-800(9)(g), F.A.C.

This project is a construction permit, processed concurrently with a Title V operation permit renewal and revision (permit 0950169-007-AV), for a Hospital/Medical/Infectious Waste Incinerator with an air pollution control system. This construction permit authorizes modification of the existing hospital/medical/infectious waste incinerator air pollution control system to add a selective non-catalytic reduction system to reduce NOx emissions and a wet scrubber to reduce other air emissions. The proposed modifications are intended to meet the emission standards in the amended Subpart Ce. This permit also incorporates other provisions of the amended 40 CFR Part 60 Subpart Ce and Rule 62-204.800(9)(g), F.A.C.

The incinerator has primary and secondary combustion chambers. A quench tower follows the secondary chamber, followed by the air pollution control system. The existing air pollution control system consists of a dry scrubber and a fabric filter (bag house). The construction permit will modify the existing facility to:
1. Install a selective non-catalytic reduction (SNCR) system at the exit of the secondary chamber, where ammonia will be injected into the exhaust stream to control NOx.

2. Install a wet scrubber with an absorber and a demister at the exit of the bag house, to control SO_2 and HCl.

The air pollution control system qualifies as a dry scrubber followed by a fabric filter and a wet scrubber, and an SNCR system, identified in 40 CFR Part 60 Subpart Ec, section 60.56c(g). The modified air pollution control system configuration is shown in the EU description below.

Facility ID Number 0950169	
EU ID	**Emission Unit Description**
001	Hospital/Medical/Infectious Waste Incinerator The continuous incinerator is a Joy Manufacturing Model 2500-TESI constructed in 1991, with primary and secondary combustion chambers. The incinerator is equipped with temperature controls located at the exit of the primary and secondary chambers. The maximum charging rate is 1,900 lb/hr, and the minimum secondary chamber temperature is 1,800^{o}F. The incinerator EU includes the air pollution control system. The incinerator has an afterburner in the secondary chamber followed by a selective non-catalytic reduction (SNCR) system. The SNCR system injects ammonia into the exhaust gases to reduce NOx emissions. The SNCR system is followed by a duct with a bypass stack and a quench tower and the existing dry scrubbing system. The dry scrubbing system includes a gas/solid mixer section, lime injection, carbon injection, and a bag house to control emissions. The bag house collector material is P84 self-supported felt with singed finish, Tri-Loft fabric, or a material with equivalent or better performance characteristics. The bag house is followed by a wet scrubber containing an absorber and a de-mister.

A new induced draft fan will replace the existing induced draft fan.

The facility also includes a lime reagent storage silo equipped with a bag house, a diesel powered fire pump and an emergency generator.

Rule 62-204-800(9)(g), F.A.C., set a compliance date of June 1, 2012. The facility has requested an extension of the compliance date to June 1, 2014. On the June 1, 2014 compliance date, this facility is subject to:

1. Rule 62-204.800(9)(g), Hospital/Medical/Infectious Waste Incinerators
2. Rule 62-296.401(4), F.A.C., Biological Waste Incinerators
3. 40 CFR Part 60 Subpart Ce, Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators, amended October 6, 2009.
4. Applicable sections of 40 CFR Part 60 Subpart Ec, Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996.

FACILITY REGULATORY CLASSIFICATION

- The facility is a Title V source by EPA designation.
- The facility is not a major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

1. Permitting & Compliance Authority: The permitting authority for this project is the Orange County Environmental Protection Division (EPD). All documents related to applications for permits to operate emission units and compliance activities such as reports, tests, and notifications shall be submitted to EPD. The mailing address and phone number of the EPD is 800 Mercy Drive, Orlando, FL 32808 and 407-836-1400.

2. Appendices: The following Appendices are attached as part of this permit:
   a. Appendix A. Citation Formats and Glossary of Common Terms;
   b. Appendix B. General Conditions;
   c. Appendix C. Common Conditions;
   d. Appendix D. Common Testing Requirements.
   e. Appendix E. 40 CFR Part 60 Subpart Ce, Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators;
   f. Appendix F. 40 CFR Part 60 Subpart Ec, Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996.

3. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C.; and Orange County Ordinances Chapter 15 Article III. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

4. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, EPD may require the permittee to conform to new or additional conditions. EPD shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, EPD may grant additional time. [Rule 62-4.080, F.A.C.]

5. Modifications: The permittee shall notify the EPD upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from EPD. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

6. Source Obligation:
   (a) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.
   (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

   [Rule 62-212.400(12), F.A.C.]

7. Application for Operation Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with EPD rules. An air operation permit is required for regular operation of the permitted emissions unit. The Title V operation permit 0950169-007-AV is being processed concurrently with this construction permit. [Rules 62-213.405, F.A.C.]

EU 001 Description

This section of the permit addresses the incinerator and air pollution control system emission unit (EU) as shown below.

Facility ID Number 0950169	
EU ID	**Emission Unit Description**
001	Hospital/Medical/Infectious Waste Incinerator The continuous incinerator is a Joy Manufacturing Model 2500-TESI constructed in 1991, with primary and secondary combustion chambers. The incinerator is equipped with temperature controls located at the exit of the primary and secondary chambers. The maximum charging rate is 1,900 lb/hr, and the minimum secondary chamber temperature is 1,800^{o}F. The incinerator EU includes the air pollution control system. The incinerator has an afterburner in the secondary chamber followed by a selective non-catalytic reduction (SNCR) system. The SNCR system will inject ammonia into the exhaust gases to reduce NOx emissions. The SNCR system is followed by a quench tower and the existing dry scrubbing system which includes a gas/solid mixer section, lime injection, carbon injection, and a bag house to control emissions. The bag house collector material is P84 self-supported felt with singed finish, Tri-Loft fabric, or a material with equivalent or better performance characteristics. The bag house is followed by a wet scrubber containing an absorber and a de-mister.

EQUIPMENT

1. SNCR System: The facility is authorized to construct a selective non-catalytic reduction system using ammonia to reduce NOx emissions. The system shall be placed between the afterburner discharge and the quench tower inlet. [Construction permit application received October 21, 2011]

2. Wet Scrubber: The facility is authorized to construct a wet scrubber containing an absorber and a demister to control SO_2 and HCl. The wet scrubber shall be placed between the bag house discharge and the induced draft fan. [Construction permit application received October 21, 2011]

OPERATING RESTRICTIONS

3. Hours of Operation. The Hospital/Medical/Infectious Waste Incinerator is allowed to operate 8400 hours per consecutive twelve months. [Rule 62-210.200(PTE), F.A.C., Construction permit application received October 21, 2011]

4. Permitted Capacity. The maximum permitted capacity of the Hospital/Medical/Infectious Waste Incinerator is 1,900 pounds per hour of hospital/medical/infectious waste. This HMIWI meets the definition of a **Large HMIWI** in 40 CFR Part 60 Subpart Ec sections 60.51c. [Construction permit application received October 21, 2011]

5. Methods of Operation – Fuels Allowed. The Hospital/Medical/Infectious Waste Incinerator is allowed to burn the following:
   a. Items and materials that fit within the definition of hospital, medical and infectious waste (HMIW) contained in 40 CFR 60.51c;
   b. International Garbage (USDA/APHIS);
   c. Confidential documents and contraband;
   d. Expired medical products;
   e. Non-hazardous trace chemotherapeutic waste materials; and;
   f. Non-hazardous pharmaceuticals;
   g. The only authorized fuels are natural gas and propane.

   [Rules 62-4.160(2), 62-210.200, and 62-213.440(1), F.A.C.; 40 CFR Part 60 Subpart Ec section 60.51c]

6. Methods of Operation – Fuels Prohibited. Subject to the limitations contained in this permit, the facility **shall not burn**:
   a. Those materials that are prohibited by state or federal law;
   b. Those materials that are prohibited by this permit;
   c. Lead acid batteries;
   d. Ash from incineration of medical/infectious waste, once the incineration process has been completed; excluding processing ash contained in re-burned material from this facility;
   e. Nuclear waste;
   f. Sewage sludge;
   g. Explosives;
   h. Human corpses, remains, and anatomical parts that are intended for interment.

   [Rule 62-4.160(2), F.A.C. and 40 CFR 60.51c]

7. Methods of Operation – Radioactive Fuels. Radioactive waste may not be burned in an incinerator subject to Rule 62-296.401(4), F.A.C., unless the incinerator has been issued a Department of Health and Rehabilitative Services (DHRS) license to incinerate radioactive waste or the waste is of such quantity to be exempt in accordance with DHRS Rule 10D-91 or 10D-104.003, F.A.C. [Rule 62-296.401(4)(d)(5), F.A.C.]

8. Methods of Operation – Hazardous Waste Fuels. Hazardous waste may not be burned in an incinerator subject to this rule [Rule 62-296.401, F.A.C.] unless the incinerator has been issued a hazardous waste permit by the FDEP or the waste is of such quantity as to be exempt in accordance with Chapter 62-730, F.A.C. [Rule 62-296.401(4)(d)(6), F.A.C.]

9. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions include the following:
   a. Paving and maintenance of roads, parking areas and yards.
   b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
   c. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
   d. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent re-entrainment, and from buildings or work areas to prevent particulate from becoming airborne.
   e. Landscaping or planting of vegetation.
   f. Use of hoods, fans, filters, enclosures and similar equipment to contain, capture and/or vent particulate matter.
   g. Enclosure or covering of conveyor systems and loading and offloading areas.
   h. Daily inspections of parking areas, roadways, ash pit, quench system, roll-off storage area, and fly ash processing area and hydrated lime silo to ensure that these areas are free of unconfined particulate matter.

   [Rule 296.320(4)(c), F.A.C., Construction permit application received October 21, 2011]

EMISSIONS STANDARDS

10. Particulate Matter Emissions. Particulate matter emissions shall not exceed 25 mg/dscm (0.011 gr/dscf) corrected to 7 percent oxygen (dry basis). [Rule 62-296.800(9)(g)3.a, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(2)]

11. Carbon Monoxide Emissions. Carbon monoxide emissions shall not exceed 11 ppmv corrected to 7 percent oxygen (dry basis). [Rule 62-296.800(9)(g)3.a, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(2)]

12. Dioxin/Furans Emissions. Dioxin/furans emissions shall not exceed 9.3 nanograms per dry standard cubic meter total dioxins/furans (4.1 grains per billion dry standard cubic feet), or 0.054 nanograms per dry standard cubic meter (0.024 grains per billion dry standard cubic feet) TEQ (Toxic Equivalency Factors). All emission concentrations shall be corrected to 7 percent oxygen (dry basis). [Rule 62-296.800(9)(g)3.a, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(2)]

Toxic Equivalency Factors

Dioxin/furan congener	toxic equivalency factor
2,3,7,8-tetrachlorinated dibenzo-p-dioxin.....	1
1,2,3,7,8-pentachlorinated dibenzo-p-dioxin.....	0.5
1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin.....	0.1
1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin.....	0.1
1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin.....	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin.....	0.01
octachlorinated dibenzo-p-dioxin.....	0.001
2,3,7,8-tetrachlorinated dibenzofuran.....	0.1
2,3,4,7,8-pentachlorinated dibenzofuran.....	0.5
1,2,3,7,8-pentachlorinated dibenzofuran.....	0.05
1,2,3,4,7,8-hexachlorinated dibenzofuran.....	0.1
1,2,3,6,7,8-hexachlorinated dibenzofuran.....	0.1
1,2,3,7,8,9-hexachlorinated dibenzofuran.....	0.1
2,3,4,6,7,8-hexachlorinated dibenzofuran.....	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzofuran.....	0.01
1,2,3,4,7,8,9-heptachlorinated dibenzofuran.....	0.01
Octachlorinated dibenzofuran.....	0.001

Note: Measure the concentration of each dioxin/furan tetra-through octa-congener emitted using EPA Reference Method 23. For each dioxin/furan congener measured, multiply the congener concentration by its corresponding toxic equivalency factor specified in the table above. Sum the products to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency. [40 CFR Part 60 Subpart Ce section 60.37e and 40 CFR Part 60 Subpart Ec section 60.56c]

13. Hydrogen Chloride Emissions. Hydrogen chloride emissions shall not exceed 6.6 ppmv corrected to 7 percent oxygen (dry basis). [Rule 62-296.800(9)(g)3.a, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(2)]

14. Sulfur Dioxide Emissions. Sulfur dioxide emissions shall not exceed 9.0 ppmv corrected to 7 percent oxygen (dry basis). [Rule 62-296.800(9)(g)3.a, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(2)]

15. Nitrogen Oxides Emissions. Nitrogen oxides emissions shall not exceed 140 ppmv corrected to 7 percent oxygen (dry basis). [Rule 62-296.800(9)(g)3.a, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(2)]

16. Lead Emissions. Lead emissions shall not exceed 0.036 mg/dscm (0.016 grains per thousand dry standard cubic feet) corrected to 7 percent oxygen (dry basis). [Rule 62-296.800(9)(g)3.a, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(2)]

17. Cadmium Emissions. Cadmium emissions shall not exceed 0.0092 mg/dscm (0.0040 grains per thousand dry standard cubic feet) corrected to 7 percent oxygen (dry basis). [Rule 62-296.800(9)(g)3.a, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(2)]

18. Mercury Emissions. Mercury emissions shall not exceed 0.018 mg/dscm (0.0079 grains per thousand dry standard cubic feet) corrected to 7 percent oxygen (dry basis). [Rule 62-296.800(9)(g)3.a, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(2)]

19. Visible Emissions. Visible emissions shall not exceed 6 percent opacity (6-minute block average). [Rule 62-296.800(9)(g)3.a, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(2); 40 CFR Part 60 Subpart Ec section 60.52c(b)(2)]

OPERATOR TRAINING AND QUALIFICATION REQUIREMENTS

20. Standards for Hospital/Medical/Infectious Waste Incinerators Operator Training and Certification.
    a. No owner or operator of an affected facility shall allow the affected facility to operate at any time unless a fully trained and qualified HMIWI operator is accessible, either at the facility or available within 1 hour. The trained and qualified HMIWI operator may operate the HMIWI directly or be the direct supervisor of one or more HMIWI operators.
    b. Operator training and qualification shall be obtained through a State-approved program or by completing the requirements included in paragraphs c. through g. of this section.
    c. Training shall be obtained by completing an HMIWI operator training course that includes, at a minimum, the following provisions:
        (1) 24 hours of training on the following subjects:
            (i) Environmental concerns, including pathogen destruction and types of emissions;
            (ii) Basic combustion principles, including products of combustion;
            (iii) Operation of the type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures;
            (iv) Combustion controls and monitoring;
            (v) Operation of air pollution control equipment and factors affecting performance;
            (vi) Methods to monitor pollutants (continuous emission monitoring systems and monitoring of HMIWI and air pollution control device operating parameters) and equipment calibration procedures (where applicable);
            (vii) Inspection and maintenance of the HMIWI, air pollution control devices, and continuous emission monitoring systems;
            (viii) Actions to correct malfunctions or conditions that may lead to malfunction;
            (ix) Bottom and fly ash characteristics and handling procedures;
            (x) Applicable Federal, State, and local regulations;
            (xi) Work safety procedures;
            (xii) Pre-startup inspections; and
            (xiii) Recordkeeping requirements.
        (2) An examination designed and administered by the instructor.
        (3) Reference material distributed to the attendees covering the course topics.
    d. Qualification shall be obtained by:
        (1) Completion of a training course that satisfies the criteria under paragraph c. of this section; and

(2) Either 6 months experience as an HMIWI operator, 6 months experience as a direct supervisor of an HMIWI operator, or completion of at least two burn cycles under the observation of two qualified HMIWI operators.

e. Qualification is valid from the date on which the examination is passed or the completion of the required experience, whichever is later.

f. To maintain qualification, the trained and qualified HMIWI operator shall complete and pass an annual review or refresher course of at least 4 hours covering, at a minimum, the following:
(1) Update of regulations;
(2) Incinerator operation, including startup and shutdown procedures;
(3) Inspection and maintenance;
(4) Responses to malfunctions or conditions that may lead to malfunction; and
(5) Discussion of operating problems encountered by attendees.

g. A lapsed qualification shall be renewed by one of the following methods:
(1) For a lapse of less than 3 years, the HMIWI operator shall complete and pass a standard annual refresher course described in paragraph f. of this section.
(2) For a lapse of 3 years or more, the HMIWI operator shall complete and pass a training course with the minimum criteria described in paragraph c. of this section.

h. The owner or operator of an affected facility shall maintain documentation at the facility that address the following:
(1) Summary of the applicable standards under this subpart;
(2) Description of basic combustion theory applicable to an HMIWI;
(3) Procedures for receiving, handling, and charging waste;
(4) HMIWI startup, shutdown, and malfunction procedures;
(5) Procedures for maintaining proper combustion air supply levels;
(6) Procedures for operating the HMIWI and associated air pollution control systems within the standards established under this subpart;
(7) Procedures for responding to periodic malfunction or conditions that may lead to malfunction;
(8) Procedures for monitoring HMIWI emissions;
(9) Reporting and recordkeeping procedures; and
(10) Procedures for handling ash.

i. The owner or operator of an affected facility shall establish a program for reviewing the information listed in paragraph h. of this section annually with each HMIWI operator (defined in 40 CFR Part 60 Subpart Ec section 60.51c).
(1) The initial review of the information listed in paragraph h. of this section shall be conducted within 6 months after the effective date of this subpart or prior to assumption of responsibilities affecting HMIWI operation, whichever date is later.
(2) Subsequent reviews of the information listed in paragraph h. of this section shall be conducted annually.

j. The information listed in paragraph h. of this section shall be kept in a readily accessible location for all HMIWI operators. This information, along with records of training shall be available for inspection by the EPA or its delegated enforcement agent upon request.

[Rule 62-204.800(9)(g)4., F.A.C. and 40 CFR Part 60 Subpart Ec section 60.53c]

WASTE MANAGEMENT PLAN

21. Waste Management Plan. The permittee shall prepare a waste management plan. The waste management plan shall identify both the feasibility and the approach to separate certain components of solid waste from the health care waste stream in order to reduce the amount of toxic emissions from incinerated waste. A waste management plan may include, but is not limited to, elements such as segregation and recycling of

paper, cardboard, plastics, glass, batteries, food waste, and metals (*e.g.*, aluminum cans, metals-containing devices); segregation of non-recyclable wastes (*e.g.*, polychlorinated biphenyl-containing waste, pharmaceutical waste, and mercury-containing waste, such as dental waste); and purchasing recycled or recyclable products. A waste management plan may include different goals or approaches for different areas or departments of the facility and need not include new waste management goals for every waste stream. It should identify, where possible, reasonably available additional waste management measures, taking into account 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. The American Hospital Association publication entitled "An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities" (incorporated by reference, 40 CFR Part 60 Subpart A section 60.17) shall be considered in the development of the waste management plan. The permittee shall conduct training and education programs in waste segregation for each of the company's waste generator clients and ensure that each client prepares its own waste management plan that includes, but is not limited to, the provisions listed previously in this condition. [Rule 62-204.800(9)(g)5., F.A.C. and 40 CFR Part 60 Subpart Ec section 60.55c]

INPSECTION GUIDELINES

22. Standards for Hospital/Medical/Infectious Waste Incinerators Inspection Guidelines
    a. The HMIWI shall undergo an initial equipment inspection that is at least as protective as the following:
        (1) At a minimum, an inspection shall include the following:
            (i) Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation; clean pilot flame sensor, as necessary;
            (ii) Ensure proper adjustment of primary and secondary chamber combustion air, and adjust as necessary;
            (iii) Inspect hinges and door latches, and lubricate as necessary;
            (iv) Inspect dampers, fans, and blowers for proper operation;
            (v) Inspect HMIWI door and door gaskets for proper sealing;
            (vi) Inspect motors for proper operation;
            (vii) Inspect primary chamber refractory lining; clean and repair/replace lining as necessary;
            (viii) Inspect incinerator shell for corrosion and/or hot spots;
            (ix) Inspect secondary/tertiary chamber and stack, clean as necessary;
            (x) Inspect mechanical loader, including limit switches, for proper operation, if applicable;
            (xi) Visually inspect waste bed (grates), and repair/seal, as appropriate;
            (xii) For the burn cycle that follows the inspection, document that the incinerator is operating properly and make any necessary adjustments;
            (xiii) Inspect air pollution control device(s) for proper operation, if applicable;
            (xiv) Inspect waste heat boiler systems to ensure proper operation, if applicable;
            (xv) Inspect bypass stack components;
            (xvi) Ensure proper calibration of thermocouples, sorbent feed systems and any other monitoring equipment; and
            (xvii) Generally observe that the equipment is maintained in good operating condition.
        (2) Within 10 operating days following an equipment inspection all necessary repairs shall be completed unless the permittee obtains written approval from the EPD establishing a date whereby all necessary repairs of the designated facility shall be completed.
    b. The HMIWI shall undergo an equipment inspection annually (no more than 12 months following the previous annual equipment inspection), as outlined in paragraph a. of this section.
    c. The HMIWI shall undergo an initial air pollution control device inspection, as applicable, that is at least as protective as the following:

(1) At a minimum, an inspection shall include the following:
  (i) Inspect air pollution control device(s) for proper operation;
  (ii) Ensure proper calibration of thermocouples, sorbent feed systems, and any other monitoring equipment; and
  (iii) Generally observe that the equipment is maintained in good operating condition.

(2) Within 10 operating days following an air pollution control device inspection, all necessary repairs shall be completed unless the permittee obtains written approval from the EPD establishing a date whereby all necessary repairs of the designated facility shall be completed.

d. The HMIWI shall undergo 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 paragraph c. of this section.

[Rule 62-204.800(9)(g)6., F.A.C. and 40 CFR Part 60 Subpart Ce section 60.36e]

TESTING REQUIREMENTS

23. Initial Compliance Tests. The HMIWI and air pollution control system, modified as authorized by this permit, shall be tested to demonstrate initial compliance with the emissions standards within 60 days after achieving operational status, but not later than 180 days after initial operation. [Rules 62-4.070(3) and 62-297.310(7)(a)1, F.A.C.; Title V operation permit revision and renewal application received May 27, 2011]

24. Test Requirements to Renew Operation Permits. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. [Rule 62-297.310(7)(a)3., F.A.C.]

25. Notification Requirements: The permittee shall notify EPD in writing at least 15 days prior to any required tests. Tests shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit. [Rule 62-297.310(7)(a)9, F.A.C.]

26. Test Requirements: The emissions limits apply at all times. The use of the bypass stack during a performance or compliance test shall invalidate that test. All performance and compliance tests shall consist of a minimum of three test runs conducted under representative operating conditions. The minimum sample time shall be 1 hour per test run unless otherwise indicated. [Rule 62-204.800(9)(g)7., F.A.C.; 40 CFR Part 60 Subpart Ec section 60.56c]

27. The pollutant concentrations shall be adjusted to 7 percent oxygen using the following equation:

$$C_{adj}=C_{meas}(20.9-7)/(20.9-\%O_2)$$

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.

[Rule 62-204.800(9)(g)7., F.A.C.; 40 CFR Part 60 Subpart Ec section 60.56c]

28. Test Methods: Required tests shall be performed in accordance with the following reference methods.

EPA Method	Description of Method and Comments
1	Sample and Velocity Traverses for Stationary Sources
2	Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)
3, 3A, 3B	Gas Analysis for the Determination of Dry Molecular Weight
4	Determination of Moisture Content in Stack Gases
5	Determination of Particulate Matter Emissions from Stationary Sources. The minimum sample volume shall be thirty dry standard cubic feet.
6 or 6C	Determination of Sulfur Dioxide Emissions from Stationary Sources
7 or 7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources. The minimum period of observation for the FDEP Method 9 test shall be 60 minutes.
10 or 10 B	Determination of Carbon Monoxide Emissions from Stationary Sources
23	Determination of Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans from Municipal Waste Combustors. The minimum sampling time shall be 4 hours per test run. See the Toxic Equivalency Factors table in condition 13.
26 or 26A	Determination of Hydrogen Halide and Halogen Emissions from Stationary Sources. Method 26A may be used to measure particulate matter emissions; the minimum sample volume shall be thirty dry standard cubic feet.
29	Determination of Metals Emissions from Stationary Sources. Method 29 may be used to measure particulate matter emissions. Mercury emissions may be measured using ASTM D6784-02.

The above methods are described in Appendix A of 40 CFR 60 and are adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from EPD. [Rules 62-204.800(9)(g)7. and 62-297.100, F.A.C.; Appendix A of 40 CFR 60; 40 CFR Part 60 Subpart Ec section 60.56c]

29. Opacity Test Frequency. Determine compliance with the opacity limit by conducting an annual compliance test (no more than 12 months following the previous compliance test) using the EPA Method 9. [Rule 62-204.800(9)(g)7., F.A.C.; 40 CFR Part 60 Subpart Ec section 60.56c]

30. CO Test Frequency. Determine compliance with the CO emission limit by conducting an annual compliance test (no more than 12 months following the previous compliance test) using the applicable procedures and test methods listed in specific condition 28, Test Methods. If all three compliance tests over a 3-year period indicate compliance with the emissions limit for CO, the permittee may forego a compliance test for the subsequent 2 years. At a minimum, a compliance test for CO shall be conducted every third year (no more than 36 months following the previous compliance test). If a compliance test conducted every third year indicates compliance with the emissions limit for CO, the permittee may forego a compliance test for an additional 2 years. If any compliance test indicates noncompliance with the emissions limit, a compliance test shall be conducted annually until all annual compliance tests over a 3-year period indicate compliance with the emissions limit. The use of the bypass stack during a compliance test shall invalidate the compliance test. [Rule 62-204.800(9)(g)7., F.A.C.; 40 CFR Part 60 Subpart Ec section 60.56c]

31. PM, HCl and Metals Testing. The permittee shall conduct annual compliance tests for PM and HCl. On or after June 1, 2014, any time the permittee conducts a performance or compliance test for any reason for particulate matter, the permittee shall also conduct a compliance test for mercury (Hg), cadmium (Cd) and lead (Pb). Testing shall be conducted in accordance with the applicable test procedures and methods in specific condition 28, Test Methods, and the results shall be reported to EPD. [Rules 62-204.800(9)(g)7.d., 62-296.401(4)(e)2., F.A.C.]

32. Operating Parameters for Dry Scrubber, Fabric Filter and Wet Scrubber. Establish the appropriate maximum and minimum operating parameters, indicated in the table below, as site specific operating parameters during the initial compliance test to determine compliance with the emission limits. Following the date on which the initial compliance test is completed, ensure that the facility does not operate above any of the applicable maximum operating parameters or below any of the applicable minimum operating parameters listed in the table below and measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at all times except during periods of startup, shutdown and malfunction. Operating parameter limits do not apply during compliance tests. Operation above the established maximum or below the established minimum operating parameter(s) shall constitute a violation of established operating parameter(s).

    Operating Parameters to be Monitored and Minimum Measurement and Recording Frequencies for Facilities with a Dry Scrubber Followed by a Fabric Filter and Wet Scrubber.

Operating Parameter Monitored	Minimum Frequency for Data Measurement	Minimum Frequency for Data Recording
Maximum Charge Rate	Continuous	1 x Hour
Maximum Fabric Filter Inlet Temperature	Continuous	1 x Minute
Minimum Secondary Chamber Temperature	Continuous	1 x Minute
Minimum Dioxin/Furan Sorbent Flow Rate	Hourly	1 x Hour
Minimum HCl Sorbent Flow Rate	Hourly	1 x Hour
Minimum Hg Sorbent Flow Rate	Hourly	1 x Hour
Minimum Pressure Drop Across Wet Scrubber[1]	Continuous	1 x Minute
Minimum Scrubber Liquor Flow Rate	Continuous	1 x Minute
Minimum Scrubber Liquor pH	Continuous	1 x Minute

    [1]This parameter shall be monitored unless US EPA approves the alternative monitoring procedure to be requested by the permittee.

    [Rule 62-204.800(9)(g)7., F.A.C.; 40 CFR Part 60 Subpart Ec section 60.56c(d)]

33. Emission Limit Violations.
    a. Operation of the facility 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 CO emission limit.
    b. Operation of the facility above the maximum fabric filter inlet temperature, above the maximum charge rate, and below the minimum dioxin/furan sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit.

c. Operation of the facility above the maximum charge rate and below the minimum scrubber liquor pH (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit.
d. Operation of the facility above the maximum charge rate and below the minimum Hg sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit.
e. Use of the bypass stack shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd and Hg emissions limits.

[Rule 62-204.800(9)(g)7., F.A.C.; 40 CFR Part 60 Subpart Ec section 60.56c(g)]

34. Repeat Compliance Tests.
    a. The permittee may conduct a repeat compliance test within 30 days of violation of applicable operating parameter(s) to demonstrate that the facility is not in violation of the applicable emissions limit(s). Repeat compliance tests conducted pursuant to this condition shall be conducted using the identical operating parameters that indicated a violation under condition 33.
    b. The permittee may conduct a repeat compliance test at any time to establish new values for the operating parameters.
    c. The EPD may request a repeat compliance test at any time.

    [Rule 62-204.800(9)(g), F.A.C.; CFR Part 60 Subpart Ec sections 60.56c(i) and (k)]

35. Operating Parameters for SNCR Systems.
    a. Establish the maximum charge rate, the minimum secondary chamber temperature, and the minimum reagent flow rate as site specific operating parameters during the initial compliance test to determine compliance with the emissions limits.
    b. Following the date on which the initial compliance test is completed, or is required to be completed under section 60.8, whichever comes first, ensure that the facility does not operate above the maximum charge rate, or below the minimum secondary chamber temperature or the minimum ammonia flow rate 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 compliance tests.

    [Rule 62-204.800(9)(g)7., F.A.C.; 40 CFR Part 60 Subpart Ec section 60.56c(h)]

MONITORING REQUIREMENTS

36. Standards for Hospital/Medical/Infectious Waste Incinerators Monitoring Requirements.
    a. The permittee shall install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the applicable maximum and minimum operating parameters listed in specific condition 32, Operating Parameters for Dry Scrubber, Fabric Filter and Wet Scrubber, such that these devices (or methods) measure and record values for these operating parameters at the frequencies indicated in condition 32 at all times.
    b. The permittee shall install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the operating parameters for SNCR technology such that the devices (or methods) measure and record values for the operating parameters in specific condition 35, Operating Parameters for SNCR Systems, at all times. Operating parameter values shall be measured and recorded at the following minimum frequencies:
        (1) Maximum charge rate shall be measured continuously and recorded once each hour;
        (2) Minimum secondary chamber temperature shall be measured continuously and recorded once each minute; and
        (3) Minimum ammonia flow rate shall be measured hourly and recorded once each hour.
    c. The permittee 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.

d. The permittee shall obtain monitoring data at all times during HMIWI 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 for 90 percent of the operating days per calendar quarter that the affected facility is combusting hospital waste and/or medical/infectious waste.
e. The permittee shall ensure that each HMIWI undergoes an initial air pollution control device inspection that is at least as protective as the following:
   (1) At a minimum, an inspection shall include the following:
      (i) Inspect air pollution control device(s) for proper operation, if applicable;
      (ii) Ensure proper calibration of thermocouples, sorbent feed systems, and any other monitoring equipment; and
      (iii) Generally observe that the equipment is maintained in good operating condition.
   (2) 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 EPD establishing a date whereby all necessary repairs of the designated facility shall be completed.
f. The permittee shall ensure that each HMIWI undergoes an air pollution control device inspection annually (no more than 12 months following the previous annual air pollution control device inspection), as outlined in conditions 36.e.(1) and 36.e.(2).

[Rule 62-204.800(9)(g)7., F.A.C.; 40 CFR Part 60 Subpart Ec section 60.57c]

37. Previous Test Results. The permittee may use the results of previous emissions tests to demonstrate compliance with the emissions limits, provided that the following conditions are met:
   a. The designated facility's previous emissions tests must have been conducted using the applicable procedures and test methods listed in 40 CFR Part 60 Subpart Ec section 60.56c(b). Previous emissions test results obtained using EPA-accepted voluntary consensus standards are also acceptable.
   b. The HMIWI 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 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).
   c. The previous emissions test(s) must have been conducted in 1996 or later.

   [Rule 62-204.800(9)(g)7., F.A.C.; 40 CFR Part 60 Subpart Ce section 60.37e(f)]

38. Continuous Emissions Monitoring Requirements. The permittee shall install, operate, and maintain, in accordance with the manufacturer's instructions, continuous emission monitoring equipment. The monitors shall record secondary combustion chamber exit temperature and oxygen. The owner or operator shall maintain a complete file of all measurements, including continuous emissions monitoring system, monitoring device, and performance testing measurements; all continuous emissions monitoring system performance evaluations; all continuous emissions monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required, recorded in a permanent legible form available for inspection. [Rule 62-296.401(4)(f), F.A.C.]

RECORDS AND REPORTS

39. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit. [Rule 62-297.310(8), F.A.C.]

40. Recordkeeping Log. Pursuant to Rules 62-4.070(3) and 62-204.800(9)(g), F.A.C., and 40 CFR Part 60 Subpart Ec section 60.58c, a log shall be kept for this facility to document compliance with the conditions of this permit. All records shall be maintained onsite in either paper copy or computer-readable format. The log shall be kept on file at the facility for at least five years. The log shall contain the following:

a. Calendar date for which records are being tabulated.
b. HMIWI charge dates, times, and weights and hourly charge rates;
c. Fabric filter inlet temperatures during each minute of operation;
d. Amount and type of dioxin/furan sorbent used during each hour of operation;
e. Amount and type of Hg sorbent used during each hour of operation;
f. Amount and type of HCl sorbent used during each hour of operation;
g. Amount and type of NO_X SNCR reagent (ammonia) used during each hour of operation;
h. Secondary chamber temperatures recorded during each minute of operation;
i. Liquor flow rate to the wet scrubber inlet during each minute of operation;
j. Pressure drop across the wet scrubber system during each minute of operation,
k. pH at the inlet to the wet scrubber during each minute of operation;
l. Records indicating use of the bypass stack, including dates, times, and durations.
m. Records of the annual air pollution control device inspections, any required maintenance, and any repairs not completed within 10 days of an inspection or the timeframe established by EPD.

[Rule 62-204.800(9)(g), F.A.C., and 40 CFR Part 60 Subpart Ec section 60.58c(b)]

41. Recordkeeping Requirements. The permittee shall also maintain the following records onsite in either paper copy or computer-readable format:
    a. The permittee shall identify the calendar days for which data on emission rates or operating parameters specified under conditions 40.a. through 40.m., Recordkeeping Log, have not been obtained, with an identification of the emission rates or operating parameters not measured, reasons for not obtaining the data, and a description of corrective actions taken.
    b. The permittee shall identify calendar days, times and durations of malfunctions, a description of the malfunction and the corrective action taken.
    c. The permittee shall identify calendar days for which data on emission rates or operating parameters specified under conditions 40.a. through 40.m., Recordkeeping Log, exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances, and a description of corrective actions taken.
    d. The permittee shall maintain records of the results of the initial, annual, and any subsequent performance and compliance tests conducted to determine compliance with the emissions limits and/or to establish or re-establish operating parameters, as applicable, and a description, including sample calculations, of how the operating parameters were established or re-established, if applicable.
    e. The permittee shall maintain records showing the names of HMIWI operators who have completed review of the information in 40 CFR Part 60 Subpart Ec section 60.53c(h) as required by section 60.53c(i), including the date of the initial review and all subsequent annual reviews;
    f. The permittee shall maintain records showing the names of the HMIWI operators who have completed the operator training requirements, including documentation of training and the dates of the training;
    g. The permittee shall maintain records showing the names of the HMIWI operators who have met the criteria for qualification under 40 CFR Part 60 Subpart Ec section 60.53c and the dates of their qualification;
    h. The permittee shall maintain records of calibration of any monitoring devices as required under 40 CFR Part 60 Subpart Ec section 60.57c(a) through (d).

    [Rule 62-204.800(9)(g), F.A.C., and 40 CFR Part 60 Subpart Ec section 60.58c(b)]

42. Compliance Test Reporting. The permittee shall submit the following information no later than 60 days following the initial compliance test. All reports shall be signed by the facilities manager. All records shall be maintained onsite in either paper copy or computer-readable format.
    a. The initial compliance test data as recorded under 40 CFR Part 60 Subpart Ec section 60.56c(b)(1) through (b)(13).

b. The values for the site-specific operating parameters established pursuant to 40 CFR Part 60 Subpart Ec section 60.56c(d) and (h), and a description, including sample calculations, of how the operating parameters were established during the initial compliance test.
c. The waste management plan as specified in condition 21, Waste Management Plan.
[Rule 62-204.800(9)(g), F.A.C., and 40 CFR Part 60 Subpart Ec section 60.58c(c)]

43. Annual Report. An annual report shall be submitted 1 year following the submissions of the Compliance Test Report and subsequent reports shall be submitted no more than 12 months following the previous report (once the unit is subject to permitting requirements under Title V of the Clean Air Act, the permittee must submit these reports semiannually). The annual report shall include the following information. All reports shall be signed by the facilities manager. All records shall be maintained onsite in either paper copy or computer-readable format.
a. The values for the site-specific operating parameters for the SNCR system, dry scrubber, fabric filter and wet scrubber.
b. The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded for the calendar year being reported.
c. The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded for the calendar year preceding the year being reported, in order to provide the EPD with a summary of the performance of the facility over a 2-year period.
d. Any information recorded under specific condition 41, Recordkeeping Requirements, a., b. or c. for the calendar year being reported.
e. Any information recorded under specific condition 41, Recordkeeping Requirements, a., b. or c. for the calendar year preceding the year being reported, in order to provide the EPD with a summary of the performance of the affected facility over a 2-year period.
f. If a compliance test was conducted during the reporting period, the results of that test.
g. If no exceedances or malfunctions were reported under specific condition 41, Recordkeeping Requirements, a., b. or c. for the calendar year being reported, a statement that no exceedances occurred during the reporting period.
h. Any use of the bypass stack, the duration, reason for malfunction, and corrective action taken.
i. Records of the annual air pollution control device inspection, any required maintenance, and any repairs not completed within 10 days of an inspection or the timeframe established by the EPD.
[Rule 62-204.800(9)(g), F.A.C., and 40 CFR Part 60 Subpart Ec section 60.58c(d)]

44. Semiannual Reports. The permittee shall submit semiannual reports containing any information recorded under specific condition 41, Recordkeeping Requirements, a., b. or c. no later than 60 days following the reporting period. The first semiannual reporting period ends 6 months following the submission of the initial Compliance Test Report. Subsequent reports shall be submitted no later than 6 calendar months following the previous report. All reports shall be signed by the facilities manager. All records shall be maintained onsite in either paper copy or computer-readable format. [Rule 62-204.800(9)(g), F.A.C., and 40 CFR Part 60 Subpart Ec section 60.58c(e)]

45. Electronic Stack Test Report Submission. For facilities that choose to submit an electronic copy of stack test reports to EPA's WebFIRE data base, as of December 31, 2011, the owner or operator of an affected facility shall enter the test data into EPA's data base using the Electronic Reporting Tool located at http://www.epa.gov/ttn/chief/ert/ert_tool.html. [40 CFR Part 60 Subpart Ec section 60.58c(g)]

46. Other Recordkeeping Requirements. The permittee shall maintain records of the annual equipment inspections that are required for each HMIWI, the annual air pollution control device inspections that are required for each HMIWI, any required maintenance, and any repairs not completed within 10 days of an inspection or the timeframe established by EPD. The permittee shall submit an annual report containing such information 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 Title V of the Act, the permittee must submit these reports semiannually). The report shall be signed by the facilities manager. [Rule 62-204.800(9)(g)8., F.A.C.; 40 CFR Part 60 Subpart Ce section 60.38e(b)]

RELATED PROVISIONS

47. Rule 62-296.401(4), F.A.C. Requirements. Any biological waste incinerator unit that is also regulated as a hospital/medical/infectious waste incinerator under 40 CFR Part 60, Subpart Ce or Ec, shall be constructed and operated so as to comply with all standards, limitations, and requirements of the applicable Subpart.
    a. The unit shall operate with a combustion zone design temperature of no less than 1800 degrees Fahrenheit for at least a 1.0 second gas residence time in the secondary (or last) combustion chamber. The primary chamber and stack volumes shall not be utilized in calculating this residence time.
    b. Mechanically fed units shall incorporate an air lock system to prevent opening the incinerator to the room environment. The volume of the loading system shall be designed to prevent overcharging, thereby assuring complete combustion of the waste.
    c. Incineration or ignition of waste shall not begin until the secondary combustion chamber temperature requirement is attained. All air pollution control and continuous emission monitoring equipment shall be operational and functioning properly prior to the incineration or ignition of waste and until all the wastes are incinerated. The secondary combustion chamber temperature requirement shall be maintained until the wastes are completely combusted.
    d. If the incinerator is modified to the extent that an EPD construction permit is required, the operators shall be retrained to operate the modified incinerator.
    e. An operator's training certificate must be kept on file at the facility for the duration of the operator's employment and for an additional two (2) years after termination of employment. The owner shall not allow the incinerator to be operated unless it is operated by an operator who has satisfactorily completed the required training program.

CITATION FORMATS

The following illustrate the formats used in the permit to identify applicable requirements from permits and regulations.

Old Permit Numbers

Example: Permit No. AC50-123456 or Permit No. AO50-123456

Where: "AC" identifies the permit as an Air Construction Permit
"AO" identifies the permit as an Air Operation Permit
"123456" identifies the specific permit project number

New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: "099" represents the specific county ID number in which the project is located

"2222" represents the specific facility ID number for that county

"001" identifies the specific permit project number

"AC" identifies the permit as an air construction permit

"AF" identifies the permit as a minor source federally enforceable state operation permit

"AO" identifies the permit as a minor source air operation permit

"AV" identifies the permit as a major Title V air operation permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: "PSD" means issued pursuant to the preconstruction review requirements of the Prevention of Significant Deterioration of Air Quality

"FL" means that the permit was issued by the State of Florida

"317" identifies the specific permit project number

Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

Example: [40 CFR 60.7]

Means: Title 40, Part 60, Section 7

GLOSSARY OF COMMON TERMS

° F: degrees Fahrenheit

AAQS: Ambient Air Quality Standard

acf: actual cubic feet

acfm: actual cubic feet per minute

ARMS: Air Resource Management System (DEP database)

BACT: best available control technology

bhp: brake horsepower

Btu: British thermal units

CAM: compliance assurance monitoring

Cd: cadmium

CEMS: continuous emissions monitoring system

cfm: cubic feet per minute

Citation Formats and Glossary of Common Terms

CFR: Code of Federal Regulations

CAA: Clean Air Act

CMS: continuous monitoring system

CO: carbon monoxide

CO_2: carbon dioxide

COMS: continuous opacity monitoring system

DARM: Division of Air Resource Management

DEP: Department of Environmental Protection

Department: Department of Environmental Protection

dscf: dry standard cubic feet

dscfm: dry standard cubic feet per minute

EPA: Environmental Protection Agency

EPD: Orange County Environmental Protection Division

EU: emissions unit

F.A.C.: Florida Administrative Code

F.A.W.: Florida Administrative Weekly

F.D.: forced draft

F.S.: Florida Statutes

FGD: flue gas desulfurization

FGR: flue gas recirculation

ft^2: square feet

ft^3: cubic feet

gpm: gallons per minute

gr: grains

H_2S: hydrogen sulfide

HAP: hazardous air pollutant

HCl: hydrochloric acid

Hg: mercury

HMIWI: hospital/medical/infectious waste incinerator

I.D.: induced draft

ID: identification

kPa: kilopascals

kW: kilowatt

lb: pound

MACT: maximum achievable control technology

MMBtu: million British thermal units

MSDS: material safety data sheets

N_2: nitrogen

NESHAP: National Emissions Standards for Hazardous Air Pollutants

NH_3: ammonia

NO_X: nitrogen oxides

NSPS: New Source Performance Standards

O&M: operation and maintenance

O_2: oxygen

Pb: lead

PM: particulate matter

PM_{10}: particulate matter with a mean aerodynamic diameter of 10 microns or less

ppm: parts per million

ppmv: parts per million by volume

ppmvd: parts per million by volume, dry basis

PSD: prevention of significant deterioration

psi: pounds per square inch

PTE: potential to emit

QA: quality assurance

QC: quality control

RACT: reasonably available control technology

RATA: relative accuracy test audit

RICE: reciprocating internal combustion engines

SAM: sulfuric acid mist

scf: standard cubic feet

scfm: standard cubic feet per minute

SIC: standard industrial classification code

SIP: State Implementation Plan

SNCR: Selective non-catalytic reduction

SO_2: sulfur dioxide

TBD: to be determined

TPD: tons/day

TPH: tons per hour

TPY: tons per year

TRS: total reduced sulfur, ORS plus H_2S

UTM: Universal Transverse Mercator coordinate system

VE: visible emissions

VOC: volatile organic compounds

General Conditions

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that EPD will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by EPD.
3. As provided in subsections 403.987(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and EPD rules, unless specifically authorized by an order from FDEP and EPD.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by EPD rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by EPD rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized EPD personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
   a. Have access to and copy any records that must be kept under conditions of the permit;
   b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
   c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or EPD rules. Reasonable time may depend on the nature of the concern being investigated.
8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide EPD with the following information:
   a. A description of and cause of noncompliance; and
   b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all

damages which may result and may be subject to enforcement action by EPD for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to EPD may be used by EPD as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or EPD rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in EPD rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or EPD rules.

11. This permit is transferable only upon EPD approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by EPD.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:
    a. Determination of Best Available Control Technology (not applicable);
    b. Determination of Prevention of Significant Deterioration (not applicable); and
    c. Compliance with New Source Performance Standards.

14. The permittee shall comply with the following:
    a. Upon request, the permittee shall furnish all records and plans required under EPD rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by EPD.
    b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by EPD rule.
    c. Records of monitoring information shall include:
        (a) The date, exact place, and time of sampling or measurements;
        (b) The person responsible for performing the sampling or measurements;
        (c) The dates analyses were performed;
        (d) The person responsible for performing the analyses;
        (e) The analytical techniques or methods used;
        (f) The results of such analyses.

15. When requested by EPD, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to EPD, such facts or information shall be corrected promptly.

16. All air pollution sources located in Orange County are subject to the Orange County Code of Ordinances, including Chapter 15, Article III, Air Quality Control.

Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.

EMISSIONS AND CONTROLS

1. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify EPD as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]

2. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]

3. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed 2 hours in any 24-hour period unless specifically authorized by EPD for longer duration. Pursuant to Rule 62-210.700(5), F.A.C., the permit subsection may specify more or less stringent requirements for periods of excess emissions. Rule 62-210-700(Excess Emissions), F.A.C., cannot vary or supersede any federal NSPS or NESHAP provision. [Rule 62-210.700(1), F.A.C.]

4. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

5. Excess Emissions - Notification: In case of excess emissions resulting from malfunctions, the permittee shall notify the Compliance Authority in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by EPD. [Rule 62-210.700(6), F.A.C.]

6. VOC or OS Emissions: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by EPD. [Rule 62-296.320(1), F.A.C.]

7. Objectionable Odor Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

8. General Visible Emissions: No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]

9. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

RECORDS AND REPORTS

10. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least 5 years following the date on which such measurements, records, or data are recorded. Records shall be made available to EPD upon request. [Rule 62-213.440(1)(b)2, F.A.C.]

11. Supporting Documentation: Supporting documentation (chemical usage tracking logs, MSDS sheets, purchase orders, EPA "As Supplied" data sheets, EPA Method 24, etc.) shall be kept for each chemical and associated products, which includes sufficient information to determine usage rates and emissions. These records shall be made available to EPD upon request. Documentation of each chemical reclaimed will use a mass balance method to determine usage and emissions (amount used minus amount collected for disposal or recycle). The log and documents shall be kept at the facility for at least five years. Daily logs shall be completed within 7 business days. [Rule 62-4.070(3), F.A.C.]

12. Emissions Computation and Reporting:

    a. *Applicability*. This rule sets forth required methodologies to be used by the owner or operator of a facility for computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for computing emissions for purposes of the reporting requirements of subsection 62-210.370(3) and paragraph 62-212.300(1)(e), F.A.C., or of any permit condition that requires emissions be computed in accordance with this rule. This rule is not intended to establish methodologies for determining compliance with the emission limitations of any air permit. [Rule 62-210.370(1), F.A.C.]

    b. *Computation of Emissions*. For any of the purposes set forth in subsection 62-210.370(1), F.A.C., the owner or operator of a facility shall compute emissions in accordance with the requirements set forth in this subsection.

        (1) Basic Approach. The owner or operator shall employ, on a pollutant-specific basis, the most accurate of the approaches set forth below to compute the emissions of a pollutant from an emissions unit; provided, however, that nothing in this rule shall be construed to require installation and operation of any continuous emissions monitoring system (CEMS), continuous parameter monitoring system (CPMS), or predictive emissions monitoring system (PEMS) not otherwise required by rule or permit, nor shall anything in this rule be construed to require performance of any stack testing not otherwise required by rule or permit.

            (a) If the emissions unit is equipped with a CEMS meeting the requirements of paragraph 62-210.370(2)(b), F.A.C., the owner or operator shall use such CEMS to compute the emissions of the pollutant, unless the owner or operator demonstrates to EPD that an alternative approach is more accurate because the CEMS represents still-emerging technology.

            (b) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C, but emissions of the pollutant can be computed pursuant to the mass balance methodology of paragraph 62-210.370(2)(c), F.A.C., the owner or operator shall use such methodology, unless the owner or operator demonstrates to EPD that an alternative approach is more accurate.

            (c) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., and emissions cannot be computed pursuant to the mass balance methodology, the owner or operator shall use an emission factor meeting the

requirements of paragraph 62-210.370(2)(d), F.A.C., unless the owner or operator demonstrates to EPD that an alternative approach is more accurate.

(2) Mass Balance Calculations.

(a) An owner or operator may use mass balance calculations to compute emissions of a pollutant for purposes of this rule provided the owner or operator:

1) Demonstrates a means of validating the content of the pollutant that is contained in or created by all materials or fuels used in or at the emissions unit; and

2) Assumes that the emissions unit emits all of the pollutant that is contained in or created by any material or fuel used in or at the emissions unit if it cannot otherwise be accounted for in the process or in the capture and destruction of the pollutant by the unit's air pollution control equipment.

(b) Where the vendor of a raw material or fuel which is used in or at the emissions unit publishes a range of pollutant content from such material or fuel, the owner or operator shall use the highest value of the range to compute the emissions, unless the owner or operator demonstrates using site-specific data that another content within the range is more accurate.

(c) In the case of an emissions unit using coatings or solvents, the owner or operator shall document, through purchase receipts, records and sales receipts, the beginning and ending VOC inventories, the amount of VOC purchased during the computational period, and the amount of VOC disposed of in the liquid phase during such period.

(3) Emission Factors.

a. An owner or operator may use an emission factor to compute emissions of a pollutant for purposes of this rule provided the emission factor is based on site-specific data such as stack test data, where available, unless the owner or operator demonstrates to the EPD that an alternative emission factor is more accurate. An owner or operator using site-specific data to derive an emission factor, or set of factors, shall meet the following requirements.

1) If stack test data are used, the emission factor shall be based on the average emissions per unit of input, output, or gas volume, whichever is appropriate, of all valid stack tests conducted during at least a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.

2) Multiple emission factors shall be used as necessary to account for variations in emission rate associated with variations in the emissions unit's operating rate or operating conditions during the period over which emissions are computed.

3) The owner or operator shall compute emissions by multiplying the appropriate emission factor by the appropriate input, output or gas volume value for the period over which the emissions are computed. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.

b. If site-specific data are not available to derive an emission factor, the owner or operator may use a published emission factor directly applicable to the process for which

emissions are computed. If no directly-applicable emission factor is available, the owner or operator may use a factor based on a similar, but different, process.

(4) Accounting for Emissions During Periods of Missing Data from CEMS, PEMS, or CPMS. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of missing data from CEMS, PEMS, or CPMS using other site-specific data to generate a reasonable estimate of such emissions.

(5) Accounting for Emissions During Periods of Startup and Shutdown. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit.

(6) Fugitive Emissions. In computing the emissions of a pollutant from a facility or emissions unit, the owner or operator shall account for the fugitive emissions of the pollutant, to the extent quantifiable, associated with such facility or emissions unit.

(7) Recordkeeping. The owner or operator shall retain a copy of all records used to compute emissions pursuant to this rule for a period of five years from the date on which such emissions information is submitted to the EPD for any regulatory purpose.

[Rule 62-210.370(2), F.A.C.]

c. *Annual Operating Report for Air Pollutant Emitting Facility*

(1) The Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) shall be completed each year for the following facilities:

a. All synthetic non-Title V sources.

b. All facilities with the potential to emit ten (10) tons per year or more of volatile organic compounds or twenty-five (25) tons per year or more of nitrogen oxides and located in an ozone nonattainment area or ozone air quality maintenance area.

(2) The annual operating report shall be submitted to EPD by April 1 of the following year. If the report is submitted using the FDEP electronic annual operating report software, there is no requirement to submit a copy to EPD.

(3) Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C., for purposes of the annual operating report.

[Rule 62-210.370(3), F.A.C.]

d. *Facility Relocation.* Unless otherwise provided by rule or more stringent permit condition, the owner or operator of a relocatable facility must submit a Facility Relocation Notification Form (DEP Form No. 62-210.900(6)) to EPD at least 30 days prior to the relocation. A separate form shall be submitted for each facility in the case of the relocation of multiple facilities which are jointly owned or operated.

[Rule 62-210.370(4), F.A.C.]

Unless otherwise specified in the permit, the following testing requirements apply to all emissions units at the facility.

COMPLIANCE TESTING REQUIREMENTS

1. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. [Rule 62-297.310(2), F.A.C.]

2. Applicable Test Procedures - Opacity Compliance Tests: When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
   a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
   b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
   c. The minimum observation period for opacity tests conducted by employees or agents of EPD to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

   [Rule 62-297.310(4), F.A.C.]

3. Determination of Process Variables:
   a. *Required Equipment*. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
   b. *Accuracy of Equipment*. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

   [Rule 62-297.310(5), F.A.C.]

4. Frequency of Compliance Tests: The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
   a. *General Compliance Testing*.
      1. The owner or operator of a new or modified emissions unit that is subject to an emission

limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.

2. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit.
3. The owner or operator shall notify EPD, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

b. *Special Compliance Tests*. When EPD, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in an FDEP rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to EPD.

[Rule 62-297.310(7), F.A.C.]

RECORDS AND REPORTS

5. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with EPD on the results of each such test. The required test report shall be filed with EPD as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow EPD to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report shall provide the following information.
   a. The type, location, and designation of the emissions unit tested.
   b. The facility at which the emissions unit is located.
   c. The owner or operator of the emissions unit.
   d. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
   e. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
   f. The date, starting time and end time of the observation.
   g. The test procedures used.
   h. The names of individuals who furnished the process variable data, conducted the test, and prepared the report.
   i. The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit plus the test result in the same form and unit of measure.
   j. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

   [Rule 62-297.310(8), F.A.C.]

40 CFR Part 60 Subpart Ce
Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators

Source: 62 FR 48379, Sept. 15, 1997, unless otherwise noted.

§ 60.30e Scope.

This subpart contains emission guidelines and compliance times for the control of certain designated pollutants from hospital/medical/infectious waste incinerator(s) (HMIWI) in accordance with sections 111 and 129 of the Clean Air Act and subpart B of this part. The provisions in these emission guidelines supersede the provisions of §60.24(f) of subpart B of this part.

§ 60.31e Definitions.

Terms used but not defined in this subpart have the meaning given them in the Clean Air Act and in subparts A, B, and Ec of this part.

Standard Metropolitan Statistical Area or *SMSA* means any areas listed in OMB Bulletin No. 93–17 entitled "Revised Statistical Definitions for Metropolitan Areas" dated June 30, 1993 (incorporated by reference, see §60.17).

§ 60.32e Designated facilities.

(a) Except as provided in paragraphs (b) through (h) of this section, the designated facility to which the guidelines apply is each individual HMIWI:

(1) For which construction was commenced on or before June 20, 1996, or for which modification was commenced on or before March 16, 1998.

(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.

(b) A combustor is not subject to this subpart during periods when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste (all defined in §60.51c) is burned, provided the owner or operator of the combustor:

(1) Notifies the Administrator of an exemption claim; and

(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.

(c) Any co-fired combustor (defined in §60.51c) is not subject to this subpart if the owner or operator of the co-fired combustor:

(1) Notifies the Administrator of an exemption claim;

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

(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.

(d) Any combustor required to have a permit under Section 3005 of the Solid Waste Disposal Act is not subject to this subpart.

(e) Any combustor which meets the applicability requirements under subpart Cb, Ea, or Eb of this part (standards or guidelines for certain municipal waste combustors) is not subject to this subpart.

(f) Any pyrolysis unit (defined in §60.51c) is not subject to this subpart.

(g) Cement kilns firing hospital waste and/or medical/infectious waste are not subject to this subpart.

(h) Physical or operational changes made to an existing HMIWI unit solely for the purpose of complying with emission guidelines under this subpart are not considered a modification and do not result in an existing HMIWI unit becoming subject to the provisions of subpart Ec (see §60.50c).

(i) Beginning September 15, 2000, or on the effective date of an EPA approved operating permit program under Clean Air Act title V and the implementing regulations under 40 CFR part 70 in the State in which the unit is located, whichever date is later, designated facilities subject to this subpart shall operate pursuant to a permit issued under the EPA-approved operating permit program.

(j) The requirements of this subpart as promulgated on September 15, 1997, shall apply to the designated facilities defined in paragraph (a)(1) of this section until the applicable compliance date of the requirements of this subpart, as amended on October 6, 2009. Upon the compliance date of the requirements of this subpart, designated facilities as defined in paragraph (a)(1) of this section are no longer subject to the requirements of this subpart, as promulgated on September 15, 1997, but are subject to the requirements of this subpart, as amended on October 6, 2009.

(k) The authorities listed under §60.50c(i) shall be retained by the Administrator and not be transferred to a state.

[60 FR 65414, Dec. 19, 1995, as amended at 74 FR 51402, Oct. 6, 2009; 76 FR 18412, Apr. 4, 2011]

§ 60.33e Emissions guidelines.

(a) For approval, a State plan shall include the requirements for emissions limits at least as protective as the following requirements, as applicable:

(1) For a designated facility as defined in §60.32e(a)(1) subject to the emissions guidelines as promulgated on September 15, 1997, the requirements listed in Table 1A of this subpart, except as provided in paragraph (b) of this section.

(2) For a designated facility as defined in §60.32e(a)(1) subject to the emissions guidelines as amended on October 6, 2009, the requirements listed in Table 1B of this subpart, except as provided in paragraph (b) of this section.

(3) For a designated facility as defined in §60.32e(a)(2), the more stringent of the requirements listed in Table 1B of this subpart and Table 1A of subpart Ec of this part.

(b) For approval, a State plan shall include the requirements for emissions limits for any small HMIWI constructed on or before June 20, 1996, which is located more than 50 miles from the boundary of the nearest Standard Metropolitan Statistical Area (defined in §60.31e) and which burns less than 2,000 pounds per week of hospital waste and medical/infectious waste that are at least as protective as the requirements in paragraphs (b)(1) and (b)(2) of this section, as applicable. The 2,000 lb/week limitation does not apply during performance tests.

(1) For a designated facility as defined in §60.32e(a)(1) subject to the emissions guidelines as promulgated on September 15, 1997, the requirements listed in Table 2A of this subpart.

(2) For a designated facility as defined in §60.32e(a)(1) subject to the emissions guidelines as amended on October 6, 2009, the requirements listed in Table 2B of this subpart.

(c) For approval, a State plan shall include the requirements for stack opacity at least as protective as the following, as applicable:

(1) For a designated facility as defined in §60.32e(a)(1) subject to the emissions guidelines as promulgated on September 15, 1997, the requirements in §60.52c(b)(1) of subpart Ec of this part.

(2) For a designated facility as defined in §60.32e(a)(1) subject to the emissions guidelines as amended on October 6, 2009 and a designated facility as defined in §60.32e(a)(2), the requirements in §60.52c(b)(2) of subpart Ec of this part.

[74 FR 51403, Oct. 6, 2009]

§ 60.34e Operator training and qualification guidelines.

For approval, a State plan shall include the requirements for operator training and qualification at least as protective as those requirements listed in §60.53c of subpart Ec of this part. The State plan shall require compliance with these requirements according to the schedule specified in §60.39e(e).

§ 60.35e Waste management guidelines.

For approval, a State plan shall include the requirements for a waste management plan at least as protective as those requirements listed in §60.55c of subpart Ec of this part.

§ 60.36e Inspection guidelines.

(a) For approval, a State plan shall require each small HMIWI subject to the emissions limits under §60.33e(b) and each HMIWI subject to the emissions limits under §60.33e(a)(2) and (a)(3) to undergo an initial equipment inspection that is at least as protective as the following within 1 year following approval of the State plan:

(1) At a minimum, an inspection shall include the following:

(i) Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation; clean pilot flame sensor, as necessary;

(ii) Ensure proper adjustment of primary and secondary chamber combustion air, and adjust as necessary;

(iii) Inspect hinges and door latches, and lubricate as necessary;

(iv) Inspect dampers, fans, and blowers for proper operation;

(v) Inspect HMIWI door and door gaskets for proper sealing;

(vi) Inspect motors for proper operation;

(vii) Inspect primary chamber refractory lining; clean and repair/replace lining as necessary;

(viii) Inspect incinerator shell for corrosion and/or hot spots;

(ix) Inspect secondary/tertiary chamber and stack, clean as necessary;

(x) Inspect mechanical loader, including limit switches, for proper operation, if applicable;

(xi) Visually inspect waste bed (grates), and repair/seal, as appropriate;

(xii) For the burn cycle that follows the inspection, document that the incinerator is operating properly and make any necessary adjustments;

(xiii) Inspect air pollution control device(s) for proper operation, if applicable;

(xiv) Inspect waste heat boiler systems to ensure proper operation, if applicable;

(xv) Inspect bypass stack components;

(xvi) Ensure proper calibration of thermocouples, sorbent feed systems and any other monitoring equipment; and

(xvii) Generally observe that the equipment is maintained in good operating condition.

(2) Within 10 operating days following an equipment inspection all necessary repairs shall be completed unless the owner or operator obtains written approval from the State agency establishing a date whereby all necessary repairs of the designated facility shall be completed.

(b) For approval, a State plan shall require each small HMIWI subject to the emissions limits under §60.33e(b) and each HMIWI subject to the emissions limits under §60.33e(a)(2) and (a)(3) to undergo an equipment inspection annually (no more than 12 months following the previous annual equipment inspection), as outlined in paragraph (a) of this section.

(c) For approval, a State plan shall require each small HMIWI subject to the emissions limits under §60.33e(b)(2) and each HMIWI subject to the emissions limits under §60.33e(a)(2) and (a)(3) to undergo an initial air pollution control device inspection, as applicable, that is at least as protective as the following within 1 year following approval of the State plan:

(1) At a minimum, an inspection shall include the following:

(i) Inspect air pollution control device(s) for proper operation, if applicable;

(ii) Ensure proper calibration of thermocouples, sorbent feed systems, and any other monitoring equipment; and

(iii) Generally observe that the equipment is maintained in good operating condition.

(2) 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 State agency establishing a date whereby all necessary repairs of the designated facility shall be completed.

(d) For approval, a State plan shall require each small HMIWI subject to the emissions limits under §60.33e(b)(2) and each HMIWI subject to the emissions limits under §60.33e(a)(2) and (a)(3) to undergo 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 paragraph (c) of this section.

[60 FR 65414, Dec. 19, 1995, as amended at 74 FR 51403, Oct. 6, 2009]

§ 60.37e Compliance, performance testing, and monitoring guidelines.

(a) Except as provided in paragraph (b) of this section, for approval, a State plan shall include the requirements for compliance and performance testing listed in §60.56c of subpart Ec of this part, with the following exclusions:

(1) For a designated facility as defined in §60.32e(a)(1) subject to the emissions limits in §60.33e(a)(1), the test methods listed in §60.56c(b)(7) and (8), the fugitive emissions testing requirements under §60.56c(b)(14) and (c)(3), the CO CEMS requirements under §60.56c(c)(4), and the compliance requirements for monitoring listed in §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).

(2) For a designated facility as defined in §60.32e(a)(1) and (a)(2) subject to the emissions limits in §60.33e(a)(2) and (a)(3), the annual fugitive emissions testing requirements under §60.56c(c)(3), the CO CEMS requirements under §60.56c(c)(4), and the compliance requirements for monitoring listed in §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 §60.33e(a)(2) and (a)(3) may, however, elect to use CO CEMS as specified under §60.56c(c)(4) or bag leak detection systems as specified under §60.57c(h).

(b) Except as provided in paragraphs (b)(1) and (b)(2) of this section, for approval, a State plan shall require each small HMIWI subject to the emissions limits under §60.33e(b) to meet the performance testing requirements listed in §60.56c of subpart Ec of this part. The 2,000 lb/week limitation under §60.33e(b) does not apply during performance tests.

(1) For a designated facility as defined in §60.32e(a)(1) subject to the emissions limits under §60.33e(b)(1), the test methods listed in §60.56c(b)(7), (8), (12), (13) (Pb and Cd), and (14), the annual PM, CO, and HCl emissions testing requirements under §60.56c(c)(2), the annual fugitive emissions testing requirements under §60.56c(c)(3), the CO CEMS requirements under §60.56c(c)(4), and the compliance requirements for monitoring listed in §60.56c(c)(5) through (7), and (d) through (k) do not apply.

(2) For a designated facility as defined in §60.32e(a)(2) subject to the emissions limits under §60.33e(b)(2), the annual fugitive emissions testing requirements under §60.56c(c)(3), the CO CEMS requirements under §60.56c(c)(4), and the compliance requirements for monitoring listed in §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 §60.33e(b)(2) may, however, elect to use CO CEMS as specified under §60.56c(c)(4) or bag leak detection systems as specified under §60.57c(h).

(c) For approval, a State plan shall require each small HMIWI subject to the emissions limits under §60.33e(b) that is not equipped with an air pollution control device to meet the following compliance and performance testing requirements:

(1) Establish 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.

(2) Following the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, ensure that the designated facility does 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).

(3) Except as provided in paragraph (c)(4) of this section, operation of the designated facility 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 emissions limits.

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

(d) For approval, a State plan shall include the requirements for monitoring listed in §60.57c of subpart Ec of this part for HMIWI subject to the emissions limits under §60.33e(a) and (b), except as provided for under paragraph (e) of this section.

(e) For approval, a State plan shall require small HMIWI subject to the emissions limits under §60.33e(b) that are not equipped with an air pollution control device to meet the following monitoring requirements:

(1) Install, calibrate (to manufacturers' specifications), maintain, and operate 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.

(2) Install, calibrate (to manufacturers' specifications), maintain, and operate a device which automatically measures and records the date, time, and weight of each charge fed into the HMIWI.

(3) The owner or operator of a designated facility shall obtain monitoring data at all times during HMIWI 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 for 90 percent of the operating hours per calendar quarter that the designated facility is combusting hospital waste and/or medical/infectious waste.

(f) The owner or operator of a designated facility as defined in §60.32e(a)(1) or (a)(2) subject to emissions limits under §60.33e(a)(2), (a)(3), or (b)(2) may use the results of previous emissions tests to demonstrate compliance with the emissions limits, provided that the conditions in paragraphs (f)(1) through (f)(3) of this section are met:

(1) The designated facility's previous emissions tests must have been conducted using the applicable procedures and test methods listed in §60.56c(b) of subpart Ec of this part. Previous emissions test results obtained using EPA-accepted voluntary consensus standards are also acceptable.

(2) The HMIWI 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 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).

(3) The previous emissions test(s) must have been conducted in 1996 or later.

[60 FR 65414, Dec. 19, 1995, as amended at 74 FR 51403, Oct. 6, 2009]

§ 60.38e Reporting and recordkeeping guidelines.

(a) Except as provided in paragraphs (a)(1) and (a)(2) of this section, for approval, a State plan shall include the reporting and recordkeeping requirements listed in §60.58c(b) through (g) of subpart Ec of this part.

(1) For a designated facility as defined in §60.32e(a)(1) subject to emissions limits under §60.33e(a)(1) or (b)(1), excluding §60.58c(b)(2)(ii) (fugitive emissions), (b)(2)(viii) (NO_Xreagent), (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).

(2) For a designated facility as defined in §60.32e(a)(1) or (a)(2) subject to emissions limits under §60.33e(a)(2), (a)(3), or (b)(2), excluding §60.58c(b)(2)(xviii) (bag leak detection system alarms), (b)(2)(xix) (CO CEMS data), and (b)(7) (siting documentation).

(b) For approval, a State plan shall require the owner or operator of each HMIWI subject to the emissions limits under §60.33e to:

(1) As specified in §60.36e, maintain records of the annual equipment inspections that are required for each HMIWI subject to the emissions limits under §60.33e(a)(2), (a)(3), and (b), and the annual air pollution control device inspections that are required for each HMIWI subject to the emissions limits under §60.33e(a)(2), (a)(3), and (b)(2), any required maintenance, and any repairs not completed within 10 days of an inspection or the timeframe established by the State regulatory agency; and

(2) Submit an annual report containing information recorded under paragraph (b)(1) of this section 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 Title V of the Act, the owner or operator must submit these reports semiannually). The report shall be signed by the facilities manager.

[60 FR 65414, Dec. 19, 1995, as amended at 74 FR 51404, Oct. 6, 2009]

§ 60.39e Compliance times.

(a) Each State in which a designated facility is operating shall submit to the Administrator a plan to implement and enforce the emissions guidelines as specified in paragraphs (a)(1) and (a)(2) of this section:

(1) Not later than September 15, 1998, for the emissions guidelines as promulgated on September 15, 1997.

(2) Not later than October 6, 2010, for the emissions guidelines as amended on October 6, 2009.

(b) Except as provided in paragraphs (c) and (d) of this section, State plans shall provide that designated facilities comply with all requirements of the State plan on or before the date 1 year after EPA approval of the State plan, regardless of whether a designated facility is identified in the State plan inventory required by §60.25(a) of subpart B of this part.

(c) State plans that specify measurable and enforceable incremental steps of progress towards compliance for designated facilities planning to install the necessary air pollution control equipment may allow compliance on or before the date 3 years after EPA approval of the State 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 approval of an amended State plan (but not later than October 6, 2014), for the emissions guidelines as amended on October 6, 2009). Suggested measurable and enforceable activities to be included in State plans are:

(1) Date for submitting a petition for site-specific operating parameters under §60.56c(j) of subpart Ec of this part.

(2) Date for obtaining services of an architectural and engineering firm regarding the air pollution control device(s);

(3) Date for obtaining design drawings of the air pollution control device(s);

(4) Date for ordering the air pollution control device(s);

(5) Date for obtaining the major components of the air pollution control device(s);

(6) Date for initiation of site preparation for installation of the air pollution control device(s);

(7) Date for initiation of installation of the air pollution control device(s);

(8) Date for initial startup of the air pollution control device(s); and

(9) Date for initial compliance test(s) of the air pollution control device(s).

(d) State plans that include provisions allowing designated facilities to petition the State for extensions beyond the compliance times required in paragraph (b) of this section shall:

(1) Require that the designated facility requesting an extension submit the following information in time to allow the State adequate time to grant or deny the extension within 1 year after EPA approval of the State plan:

(i) Documentation of the analyses undertaken to support the need for an extension, including an explanation of why up to 3 years after EPA approval of the State plan is sufficient time to comply with the State plan while 1 year after EPA approval of the State plan is not sufficient. The documentation shall also include an evaluation of the option to transport the waste offsite to a commercial medical waste treatment and disposal facility on a temporary or permanent basis; and

(ii) Documentation of measurable and enforceable incremental steps of progress to be taken towards compliance with the emission guidelines.

(2) Include procedures for granting or denying the extension; and

(3) If an extension is granted, require expeditious compliance with the emissions guidelines on or before the date 3 years after EPA approval of the state 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 EPA approval of an amended state plan (but not later than October 6, 2014), for the emissions guidelines as amended on October 6, 2009.

(e) For approval, a State plan shall require compliance with §60.34e—Operator training and qualification guidelines and §60.36e—Inspection guidelines by the date 1 year after EPA approval of a State plan.

(f) The Administrator shall develop, implement, and enforce a plan for existing HMIWI located in any State that has not submitted an approvable plan within 2 years after September 15, 1997, for the emissions guidelines as promulgated on September 15, 1997, and within 2 years after October 6, 2009 for the emissions guidelines as amended on October 6, 2009. Such plans shall ensure that each designated facility is in compliance with the provisions of this subpart no later than 5 years after September 15, 1997, for the emissions guidelines as promulgated on September 15, 1997, and no later than 5 years after October 6, 2009 for the emissions guidelines as amended on October 6, 2009.

[60 FR 65414, Dec. 19, 1995, as amended at 74 FR 51404, Oct. 6, 2009; 76 FR 18412, Apr. 4, 2011]

Table 1A to Subpart Ce of Part 60—Emissions Limits for Small, Medium, and Large HMIWI at Designated Facilities as Defined in §60.32e(a)(1)

Pollutant	Units (7 percent oxygen, dry basis)	Emissions limits			Averaging time[1]	Method for demonstrating compliance[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 part 60, or EPA Reference Method 26A or 29 of appendix A–8 of 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 part 60.
Dioxins/furans	Nanograms per dry standard cubic meter total dioxins/furans (ng/dscm) (grains per billion dry standard cubic feet (gr/10^9dscf)) or ng/dscm TEQ (gr/10^9dscf)	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 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 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 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 part 60.
Lead	mg/dscm (grains per thousand dry standard cubic feet (gr/10^3dscf)) 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 part 60.
Cadmium	mg/dscm (gr/10^3dscf) 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	EPA Reference Method 29 of appendix A–8 of part 60.

					run)	
Mercury	mg/dscm (gr/10^3dscf) 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 part 60.

[1]Except as allowed under §60.56c(c) for HMIWI equipped with CEMS.
[2]Does not include CEMS and approved alternative non-EPA test methods allowed under §60.56c(b).
[60 FR 65414, Dec. 19, 1995, as amended at 74 FR 51405, Oct. 6, 2009; 76 FR 18412, Apr. 4, 2011]

Table 1B to Subpart Ce of Part 60—Emissions Limits for Small, Medium, and Large HMIWI at Designated Facilities as Defined in §60.32e(a)(1) and (a)(2)

Pollutant	Units (7 percent oxygen, dry basis)	Emissions limits HMIWI size			Averaging time[1]	Method for demonstrating compliance[2]
		Small	Medium	Large		
Particulate matter	Milligrams per dry standard cubic meter (mg/dscm) (grains per dry standard cubic foot (gr/dscf))	66 (0.029)	46 (0.020)	25 (0.011)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 5 of appendix A–3 of part 60, or EPA Reference Method 26A or 29 of appendix A–8 of 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 part 60.
Dioxins/furans	Nanograms per dry standard cubic meter total dioxins/furans (ng/dscm) (grains per billion dry standard cubic feet (gr/10^9dscf)) or ng/dscm TEQ (gr/10^9dscf)	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 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 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 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 part 60.

Lead	mg/dscm (grains per thousand dry standard cubic feet (gr/10^3dscf))	0.31 (0.14)	0.018 (0.0079)	0.036 (0.016)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A–8 of part 60.
Cadmium	mg/dscm (gr/10^3dscf)	0.017 (0.0074)	0.013 (0.0057)	0.0092 (0.0040)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A–8 of part 60.
Mercury	mg/dscm (gr/10^3dscf)	0.014 (0.0061)	0.025 (0.011)	0.018 (0.0079)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A–8 of part 60.

[1]Except as allowed under §60.56c(c) for HMIWI equipped with CEMS.
[2]Does not include CEMS and approved alternative non-EPA test methods allowed under §60.56c(b).
[74 FR 51406, Oct. 6, 2009]

Table 2A to Subpart Ce of Part 60—Emissions Limits for Small HMIWI Which Meet the Criteria Under §60.33e(b)(1)

Pollutant	Units (7 percent oxygen, dry basis)	HMIWI emissions limits	Averaging time[1]	Method for demonstrating compliance[2]
Particulate matter	mg/dscm (gr/dscf)	197 (0.086)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 5 of appendix A–3 of part 60, or EPA Reference Method 26A or 29 of appendix A–8 of 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 part 60.
Dioxins/furans	ng/dscm total dioxins/furans (gr/10^9dscf) or ng/dscm TEQ (gr/10^9dscf)	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 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 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 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 part 60.
Lead	mg/dscm (gr/10^3dscf)	10 (4.4)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A–8 of part 60.

Cadmium	mg/dscm (gr/10^3dscf)	4 (1.7)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A–8 of part 60.
Mercury	mg/dscm (gr/10^3dscf)	7.5 (3.3)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A–8 of part 60.

[1]Except as allowed under §60.56c(c) for HMIWI equipped with CEMS.
[2]Does not include CEMS and approved alternative non-EPA test methods allowed under §60.56c(b).
[74 FR 51407, Oct. 6, 2009]

Table 2B to Subpart Ce of Part 60—Emissions Limits for Small HMIWI Which Meet the Criteria Under §60.33e(b)(2)

Pollutant	Units (7 percent oxygen, dry basis)	HMIWI Emissions limits	Averaging time[1]	Method for demonstrating compliance[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 part 60, or EPA Reference Method 26A or 29 of appendix A–8 of 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 part 60.
Dioxins/furans	ng/dscm total dioxins/furans (gr/10^9dscf) or ng/dscm TEQ (gr/10^9dscf)	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 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 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 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 part 60.
Lead	mg/dscm (gr/10^3dscf)	0.50 (0.22)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A–8 of part 60.
Cadmium	mg/dscm (gr/10^3dscf)	0.11 (0.048)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A–8 of part 60.
Mercury	mg/dscm (gr/10^3dscf)	0.0051 (0.0022)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A–8 of part 60.

[1]Except as allowed under §60.56c(c) for HMIWI equipped with CEMS.
[2]Does not include CEMS and approved alternative non-EPA test methods allowed under §60.56c(b).
[74 FR 51407, Oct. 6, 2009]

40 CFR Part 60 Subpart Ec
Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996

Source: 62 FR 48382, Sept. 15, 1997, unless otherwise noted.

§ 60.50c Applicability and delegation of authority.

(a) Except as provided in paragraphs (b) through (h) of this section, the affected facility to which this subpart applies is each individual hospital/medical/infectious waste incinerator (HMIWI):

(1) For which construction is commenced after June 20, 1996 but no later than December 1, 2008; or

(2) For which modification is commenced after March 16, 1998 but no later than April 6, 2010.

(3) For which construction is commenced after December 1, 2008; or

(4) For which modification is commenced after April 6, 2010.

(b) A combustor is not subject to this subpart during periods when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste (all defined in §60.51c) is burned, provided the owner or operator of the combustor:

(1) Notifies the Administrator of an exemption claim; and

(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.

(c) Any co-fired combustor (defined in §60.51c) is not subject to this subpart if the owner or operator of the co-fired combustor:

(1) Notifies the Administrator of an exemption claim;

(2) Provides an estimate of the relative amounts of hospital waste, medical/infectious waste, and other fuels and wastes to be combusted; and

(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.

(d) Any combustor required to have a permit under section 3005 of the Solid Waste Disposal Act is not subject to this subpart.

(e) Any combustor which meets the applicability requirements under subpart Cb, Ea, or Eb of this part (standards or guidelines for certain municipal waste combustors) is not subject to this subpart.

(f) Any pyrolysis unit (defined in §60.51c) is not subject to this subpart.

(g) Cement kilns firing hospital waste and/or medical/infectious waste are not subject to this subpart.

(h) Physical or operational changes made to an existing HMIWI solely for the purpose of complying with emission guidelines under subpart Ce are not considered a modification and do not result in an existing HMIWI becoming subject to this subpart.

(i) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, the following authorities shall be retained by the Administrator and not transferred to a State:

(1) The requirements of Sec. 60.56c(i) establishing operating parameters when using controls other than those listed in Sec. 60.56c(d).

(2) Approval of alternative methods of demonstrating compliance under §60.8 including:

(i) Approval of CEMS for PM, HCl, multi-metals, and Hg where used for purposes of demonstrating compliance,

(ii) Approval of continuous automated sampling systems for dioxin/furan and Hg where used for purposes of demonstrating compliance, and

(iii) Approval of major alternatives to test methods;

(3) Approval of major alternatives to monitoring;

(4) Waiver of recordkeeping requirements; and

(5) Performance test and data reduction waivers under §60.8(b).

(j) Affected facilities subject to this subpart are not subject to the requirements of 40 CFR part 64.

(i) Approval of CEMS for PM, HCl, multi-metals, and Hg where used for purposes of demonstrating compliance,

(ii) Approval of continuous automated sampling systems for dioxin/furan and Hg where used for purposes of demonstrating compliance, and

(iii) Approval of major alternatives to test methods;

(3) Approval of major alternatives to monitoring;

(4) Waiver of recordkeeping requirements; and

(5) Performance test and data reduction waivers under §60.8(b).

(k) The requirements of this subpart shall become effective March 16, 1998

(l) Beginning September 15, 2000, or on the effective date of an EPA-approved operating permit program under Clean Air Act title V and the implementing regulations under 40 CFR part 70 in the State in which the unit is located, whichever date is later, affected facilities subject to this subpart shall operate pursuant to a permit issued under the EPA approved State operating permit program.

(m) The requirements of this subpart as promulgated on September 15, 1997, shall apply to the affected facilities defined in paragraph (a)(1) and (2) of this section until the applicable compliance date of the requirements of subpart Ce of this part, as amended on October 6, 2009. Upon the compliance date of the requirements of the amended subpart Ce of this part, affected facilities as defined in paragraph (a) of this section are no longer subject to the requirements of this subpart, but are subject to the requirements of subpart Ce of this part, as amended on October 6, 2009, except where the emissions limits of this subpart as promulgated on September 15, 1997 are more stringent than the emissions limits of the amended subpart Ce of this part. Compliance with subpart Ce of this part, as amended on October 6, 2009 is required on or before the date 3 years after EPA approval of the State plan for States in which an affected facility as defined in paragraph (a) of this section is located (but not later than the date 5 years after promulgation of the amended subpart).

(n) The requirements of this subpart, as amended on October 6, 2009, shall become effective April 6, 2010.

[62 FR 48382, Sept. 15, 1997, as amended at 74 FR 51408, Oct. 6, 2009]

§ 60.51c Definitions.

Bag leak detection system means an instrument that is capable of monitoring PM loadings in the exhaust of a fabric filter in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light-scattering, light-transmittance, or other effects to monitor relative PM loadings.

Batch HMIWI means an HMIWI that is designed such that neither waste charging nor ash removal can occur during combustion.

Biologicals means preparations made from living organisms and their products, including vaccines, cultures, etc., intended for use in diagnosing, immunizing, or treating humans or animals or in research pertaining thereto.

Blood products means any product derived from human blood, including but not limited to blood plasma, platelets, red or white blood corpuscles, and other derived licensed products, such as interferon, etc.

Body fluids means liquid emanating or derived from humans and limited to blood; dialysate; amniotic, cerebrospinal, synovial, pleural, peritoneal and pericardial fluids; and semen and vaginal secretions.

Bypass stack means a device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

Chemotherapeutic waste means waste material resulting from the production or use of antineoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

Co-fired combustor means a unit combusting hospital waste and/or medical/infectious waste with other fuels or wastes (e.g., coal, municipal solid waste) and subject to an enforceable requirement limiting the unit to combusting a fuel feed stream, 10 percent or less of the weight of which is comprised, in aggregate, of hospital waste and medical/infectious waste as measured on a calendar quarter basis. For purposes of this definition, pathological waste, chemotherapeutic waste, and low-level radioactive waste are considered “other” wastes when calculating the percentage of hospital waste and medical/infectious waste combusted.

Commercial HMIWI means a HMIWI which offers incineration services for hospital/medical/infectious waste generated offsite by firms unrelated to the firm that owns the HMIWI.

Continuous emission monitoring system or *CEMS* means a monitoring system for continuously measuring and recording the emissions of a pollutant from an affected facility.

Continuous HMIWI means an HMIWI that is designed to allow waste charging and ash removal during combustion.

Dioxins/furans means the combined emissions of tetra-through octa-chlorinated dibenzo-para-dioxins and dibenzofurans, as measured by EPA Reference Method 23.

Dry scrubber means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gases in the HMIWI exhaust stream forming a dry powder material.

Fabric filter or *baghouse* means an add-on air pollution control system that removes particulate matter (PM) and nonvaporous metals emissions by passing flue gas through filter bags.

Facilities manager means the individual in charge of purchasing, maintaining, and operating the HMIWI or the owner's or operator's representative responsible for the management of the HMIWI. Alternative titles may include director of facilities or vice president of support services.

High-air phase means the stage of the batch operating cycle when the primary chamber reaches and maintains maximum operating temperatures.

Hospital means any facility which has an organized medical staff, maintains at least six inpatient beds, and where the primary function of the institution is to provide diagnostic and therapeutic patient services and continuous nursing care primarily to human inpatients who are not related and who stay on average in excess of 24 hours per admission. This definition does not include facilities maintained for the sole purpose of providing nursing or convalescent care to human patients who generally are not acutely ill but who require continuing medical supervision.

Hospital/medical/infectious waste incinerator or *HMIWI* or *HMIWI unit* means any device that combusts any amount of hospital waste and/or medical/infectious waste.

Hospital/medical/infectious waste incinerator operator or *HMIWI operator* means any person who operates, controls or supervises the day-to-day operation of an HMIWI.

Hospital waste means discards generated at a hospital, except unused items returned to the manufacturer. The definition of hospital waste does not include human corpses, remains, and anatomical parts that are intended for interment or cremation.

Infectious agent means any organism (such as a virus or bacteria) that is capable of being communicated by invasion and multiplication in body tissues and capable of causing disease or adverse health impacts in humans.

Intermittent HMIWI means an HMIWI that is designed to allow waste charging, but not ash removal, during combustion.

Large HMIWI means:

(1) Except as provided in (2);

(i) An HMIWI whose maximum design waste burning capacity is more than 500 pounds per hour; or

(ii) A continuous or intermittent HMIWI whose maximum charge rate is more than 500 pounds per hour; or

(iii) A batch HMIWI whose maximum charge rate is more than 4,000 pounds per day.

(2) The following are not large HMIWI:

(i) A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 500 pounds per hour; or

(ii) A batch HMIWI whose maximum charge rate is less than or equal to 4,000 pounds per day.

Low-level radioactive waste means waste material which contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable federal or State standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or by-product material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)).

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions. During periods of malfunction the operator shall operate within established parameters as much as possible, and monitoring of all applicable operating parameters shall continue until all waste has been combusted or until the malfunction ceases, whichever comes first.

Maximum charge rate means:

(1) For continuous and intermittent HMIWI, 110 percent of the lowest 3-hour average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(2) For batch HMIWI, 110 percent of the lowest daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

Maximum design waste burning capacity means:

(1) For intermittent and continuous HMIWI,

$C=P_V\times 15{,}000/8{,}500$

Where:

C=HMIWI capacity, lb/hr

P_V=primary chamber volume, ft^3

15,000=primary chamber heat release rate factor, Btu/ft^3 /hr

8,500=standard waste heating value, Btu/lb;

(2) For batch HMIWI,

$C=P_V\times 4.5/8$

Where:

C=HMIWI capacity, lb/hr

P_V=primary chamber volume, ft^3

4.5=waste density, lb/ft^3

8=typical hours of operation of a batch HMIWI, hours.

Maximum fabric filter inlet temperature means 110 percent of the lowest 3-hour average temperature at the inlet to the fabric filter (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

Maximum flue gas temperature means 110 percent of the lowest 3-hour average temperature at the outlet from the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the mercury (Hg) emission limit.

Medical/infectious waste means any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals that is listed in paragraphs (1) through (7) of this definition. The definition of medical/infectious waste does not include hazardous waste identified or listed under the regulations in part 261 of this chapter; household waste, as defined in §261.4(b)(1) of this chapter; ash from incineration of medical/infectious waste, once the incineration process has been completed; human corpses, remains, and anatomical parts that are intended for interment mation; and domestic sewage materials identified in §261.4(a)(1) of this chapter.

(1) Cultures and stocks of infectious agents and associated biologicals, including: cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate, and mix cultures.

(2) Human pathological waste, including tissues, organs, and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures, and specimens of body fluids and their containers.

(3) Human blood and blood products including:

(i) Liquid waste human blood;

(ii) Products of blood;

(iii) Items saturated and/or dripping with human blood; or

(iv) Items that were saturated and/or dripping with human blood that are now caked with dried human blood; including serum, plasma, and other blood components, and their containers, which were used or intended for use in either patient care, testing and laboratory analysis or the development of pharmaceuticals. Intravenous bags are also included in this category.

(4) Sharps that have been used in animal or human patient care or treatment or in medical, research, or industrial laboratories, including hypodermic needles, syringes (with or without the attached needle), pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips.

(5) Animal waste including contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research (including research in veterinary hospitals), production of biologicals or testing of pharmaceuticals.

(6) Isolation wastes including biological waste and discarded materials contaminated with blood, excretions, exudates, or secretions from humans who are isolated to protect others from certain highly communicable diseases, or isolated animals known to be infected with highly communicable diseases.

(7) Unused sharps including the following unused, discarded sharps: hypodermic needles, suture needles, syringes, and scalpel blades.

Medium HMIWI means:

(1) Except as provided in paragraph (2);

(i) An HMIWI whose maximum design waste burning capacity is more than 200 pounds per hour but less than or equal to 500 pounds per hour; or

(ii) A continuous or intermittent HMIWI whose maximum charge rate is more than 200 pounds per hour but less than or equal to 500 pounds per hour; or

(iii) A batch HMIWI whose maximum charge rate is more than 1,600 pounds per day but less than or equal to 4,000 pounds per day.

(2) The following are not medium HMIWI:

(i) A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 200 pounds per hour or more than 500 pounds per hour; or

(ii) A batch HMIWI whose maximum charge rate is more than 4,000 pounds per day or less than or equal to 1,600 pounds per day.

Minimum dioxin/furan sorbent flow rate means 90 percent of the highest 3-hour average dioxin/furan sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

Minimum Hg sorbent flow rate means 90 percent of the highest 3-hour average Hg sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the Hg emission limit.

Minimum hydrogen chloride (HCl) sorbent flow rate means 90 percent of the highest 3-hour average HCl sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the HCl emission limit.

Minimum horsepower or amperage means 90 percent of the highest 3-hour average horsepower or amperage to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable emission limits.

Minimum pressure drop across the wet scrubber means 90 percent of the highest 3-hour average pressure drop across the wet scrubber PM control device (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM emission limit.

Minimum reagent flow rate means 90 percent of the highest 3-hour average reagent flow rate at the inlet to the selective noncatalytic reduction technology (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the NO_Xemissions limit.

Minimum scrubber liquor flow rate means 90 percent of the highest 3-hour average liquor flow rate at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with all applicable emission limits.

Minimum scrubber liquor pH means 90 percent of the highest 3-hour average liquor pH at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the HCl emission limit.

Minimum secondary chamber temperature means 90 percent of the highest 3-hour average secondary chamber temperature (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM, CO, dioxin/furan, and NO_Xemissions limits.

Modification or *Modified HMIWI* means any change to an HMIWI unit after the effective date of these standards such that:

(1) The cumulative costs of the modifications, over the life of the unit, exceed 50 per centum of the original cost of the construction and installation of the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs, or

(2) The change involves a physical change in or change in the method of operation of the unit which increases the amount of any air pollutant emitted by the unit for which standards have been established under section 129 or section 111.

Operating day means a 24-hour period between 12:00 midnight and the following midnight during which any amount of hospital waste or medical/infectious waste is combusted at any time in the HMIWI.

Operation means the period during which waste is combusted in the incinerator excluding periods of startup or shutdown.

Particulate matter or *PM* means the total particulate matter emitted from an HMIWI as measured by EPA Reference Method 5 or EPA Reference Method 29.

Pathological waste means waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

Primary chamber means the chamber in an HMIWI that receives waste material, in which the waste is ignited, and from which ash is removed.

Pyrolysis means the endothermic gasification of hospital waste and/or medical/infectious waste using external energy.

Secondary chamber means a component of the HMIWI that receives combustion gases from the primary chamber and in which the combustion process is completed.

Shutdown means the period of time after all waste has been combusted in the primary chamber. For continuous HMIWI, shutdown shall commence no less than 2 hours after the last charge to the incinerator. For intermittent HMIWI, shutdown shall commence no less than 4 hours after the last charge to the incinerator. For batch HMIWI, shutdown shall commence no less than 5 hours after the high-air phase of combustion has been completed.

Small HMIWI means:

(1) Except as provided in (2);

(i) An HMIWI whose maximum design waste burning capacity is less than or equal to 200 pounds per hour; or

(ii) A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 200 pounds per hour; or

(iii) A batch HMIWI whose maximum charge rate is less than or equal to 1,600 pounds per day.

(2) The following are not small HMIWI:

(i) A continuous or intermittent HMIWI whose maximum charge rate is more than 200 pounds per hour;

(ii) A batch HMIWI whose maximum charge rate is more than 1,600 pounds per day.

Standard conditions means a temperature of 20 °C and a pressure of 101.3 kilopascals.

Startup means the period of time between the activation of the system and the first charge to the unit. For batch HMIWI, startup means the period of time between activation of the system and ignition of the waste.

Wet scrubber means an add-on air pollution control device that utilizes an alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

[62 FR 48382, Sept. 15, 1997, as amended at 74 FR 51408, Oct. 6, 2009]

§ 60.52c Emission limits.

(a) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility shall cause to be discharged into the atmosphere:

(1) From an affected facility as defined in §60.50c(a)(1) and (2), any gases that contain stack emissions in excess of the limits presented in Table 1A to this subpart.

(2) From an affected facility as defined in §60.50c(a)(3) and (4), any gases that contain stack emissions in excess of the limits presented in Table 1B to this subpart.

(b) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility shall cause to be discharged into the atmosphere:

(1) From an affected facility as defined in §60.50c(a)(1) and (2), any gases that exhibit greater than 10 percent opacity (6-minute block average).

(2) From an affected facility as defined in §60.50c(a)(3) and (4), any gases that exhibit greater than 6 percent opacity (6-minute block average).

(c) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility as defined in §60.50c(a)(1) and (2) and utilizing a large HMIWI, and in §60.50c(a)(3) and (4), shall cause to be discharged into the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (*i.e.,* 9 minutes per 3-hour period), as determined by EPA Reference Method 22 of appendix A–1 of this part, except as provided in paragraphs (d) and (e) of this section.

(d) The emission limit specified in paragraph (c) of this section does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.

(e) The provisions specified in paragraph (c) of this section do not apply during maintenance and repair of ash conveying systems. Maintenance and/or repair shall not exceed 10 operating days per calendar quarter unless the owner or operator obtains written approval from the State agency establishing a date whereby all necessary maintenance and repairs of ash conveying systems shall be completed.

[62 FR 48382, Sept. 15, 1997, as amended at 74 FR 51409, Oct. 6, 2009]

§ 60.53c Operator training and qualification requirements.

(a) No owner or operator of an affected facility shall allow the affected facility to operate at any time unless a fully trained and qualified HMIWI operator is accessible, either at the facility or available within 1 hour. The trained and qualified HMIWI operator may operate the HMIWI directly or be the direct supervisor of one or more HMIWI operators.

(b) Operator training and qualification shall be obtained through a State-approved program or by completing the requirements included in paragraphs (c) through (g) of this section.

(c) Training shall be obtained by completing an HMIWI operator training course that includes, at a minimum, the following provisions:

(1) 24 hours of training on the following subjects:

(i) Environmental concerns, including pathogen destruction and types of emissions;

(ii) Basic combustion principles, including products of combustion;

(iii) Operation of the type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures;

(iv) Combustion controls and monitoring;

(v) Operation of air pollution control equipment and factors affecting performance (if applicable);

(vi) Methods to monitor pollutants (continuous emission monitoring systems and monitoring of HMIWI and air pollution control device operating parameters) and equipment calibration procedures (where applicable);

(vii) Inspection and maintenance of the HMIWI, air pollution control devices, and continuous emission monitoring systems;

(viii) Actions to correct malfunctions or conditions that may lead to malfunction;

(ix) Bottom and fly ash characteristics and handling procedures;

(x) Applicable Federal, State, and local regulations;

(xi) Work safety procedures;

(xii) Pre-startup inspections; and

(xiii) Recordkeeping requirements.

(2) An examination designed and administered by the instructor.

(3) Reference material distributed to the attendees covering the course topics.

(d) Qualification shall be obtained by:

(1) Completion of a training course that satisfies the criteria under paragraph (c) of this section; and

(2) Either 6 months experience as an HMIWI operator, 6 months experience as a direct supervisor of an HMIWI operator, or completion of at least two burn cycles under the observation of two qualified HMIWI operators.

(e) Qualification is valid from the date on which the examination is passed or the completion of the required experience, whichever is later.

(f) To maintain qualification, the trained and qualified HMIWI operator shall complete and pass an annual review or refresher course of at least 4 hours covering, at a minimum, the following:

(1) Update of regulations;

(2) Incinerator operation, including startup and shutdown procedures;

(3) Inspection and maintenance;

(4) Responses to malfunctions or conditions that may lead to malfunction; and

(5) Discussion of operating problems encountered by attendees.

(g) A lapsed qualification shall be renewed by one of the following methods:

(1) For a lapse of less than 3 years, the HMIWI operator shall complete and pass a standard annual refresher course described in paragraph (f) of this section.

(2) For a lapse of 3 years or more, the HMIWI operator shall complete and pass a training course with the minimum criteria described in paragraph (c) of this section.

(h) The owner or operator of an affected facility shall maintain documentation at the facility that address the following:

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

(2) Description of basic combustion theory applicable to an HMIWI;

(3) Procedures for receiving, handling, and charging waste;

(4) HMIWI startup, shutdown, and malfunction procedures;

(5) Procedures for maintaining proper combustion air supply levels;

(6) Procedures for operating the HMIWI and associated air pollution control systems within the standards established under this subpart;

(7) Procedures for responding to periodic malfunction or conditions that may lead to malfunction;

(8) Procedures for monitoring HMIWI emissions;

(9) Reporting and recordkeeping procedures; and

(10) Procedures for handling ash.

(i) The owner or operator of an affected facility shall establish a program for reviewing the information listed in paragraph (h) of this section annually with each HMIWI operator (defined in §60.51c).

(1) The initial review of the information listed in paragraph (h) of this section shall be conducted within 6 months after the effective date of this subpart or prior to assumption of responsibilities affecting HMIWI operation, whichever date is later.

(2) Subsequent reviews of the information listed in paragraph (h) of this section shall be conducted annually.

(j) The information listed in paragraph (h) of this section shall be kept in a readily accessible location for all HMIWI operators. This information, along with records of training shall be available for inspection by the EPA or its delegated enforcement agent upon request.

§ 60.54c Siting requirements.

(a) The owner or operator of an affected facility for which construction is commenced after September 15, 1997 shall prepare an analysis of the impacts of the affected facility. The analysis shall consider air pollution control alternatives that minimize, on a site-specific basis, to the maximum extent practicable, potential risks to public health or the environment. In considering such alternatives, the analysis may consider costs, energy impacts, non-air environmental impacts, or any other factors related to the practicability of the alternatives.

(b) Analyses of facility impacts prepared to comply with State, local, or other Federal regulatory requirements may be used to satisfy the requirements of this section, as long as they include the consideration of air pollution control alternatives specified in paragraph (a) of this section.

(c) The owner or operator of the affected facility shall complete and submit the siting requirements of this section as required under §60.58c(a)(1)(iii).

§ 60.55c Waste management plan.

The owner or operator of an affected facility shall prepare a waste management plan. The waste management plan shall identify both the feasibility and the approach to separate certain components of solid waste from the health care waste stream in order to reduce the amount of toxic emissions from incinerated waste. A waste management plan may include, but is not limited to, elements such as segregation and recycling of paper, cardboard, plastics, glass, batteries, food waste, and metals (*e.g.,* aluminum cans, metals-containing devices); segregation of non-recyclable wastes (*e.g.,* polychlorinated biphenyl-containing waste, pharmaceutical waste, and mercury-containing waste, such as dental waste); and purchasing recycled or recyclable products. A waste management plan may include different goals or approaches for different areas or departments of the facility and need not include new waste management goals for every waste stream. It should identify, where possible, reasonably available additional waste management measures, taking into account 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. The American Hospital Association publication entitled “An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities” (incorporated by reference, *see* §60.17) shall be considered in the development of the waste management plan. The owner or operator of each commercial HMIWI company shall conduct training and education programs in waste segregation for each of the company's waste generator clients and ensure that each client prepares its own waste management plan that includes, but is not limited to, the provisions listed previously in this section.

[74 FR 51409, Oct. 6, 2009]

§ 60.56c Compliance and performance testing.

(a) The emissions limits apply at all times.

(b) The owner or operator of an affected facility as defined in §60.50c(a)(1) and (2), shall conduct an initial performance test as required under §60.8 to determine compliance with the emissions limits using the procedures and test methods listed in paragraphs (b)(1) through (b)(6) and (b)(9) through (b)(14) of this section. The owner or operator of an affected facility as defined in §60.50c(a)(3) and (4), shall conduct an initial performance test as required under §60.8 to determine compliance with the emissions limits using the procedures and test methods listed in paragraphs (b)(1) through (b)(14). The use of the bypass stack during a performance test shall invalidate the performance test.

(1) All performance tests shall consist of a minimum of three test runs conducted under representative operating conditions.

(2) The minimum sample time shall be 1 hour per test run unless otherwise indicated.

(3) EPA Reference Method 1 of appendix A of this part shall be used to select the sampling location and number of traverse points.

(4) EPA Reference Method 3, 3A, or 3B of appendix A–2 of this part shall be used for gas composition analysis, including measurement of oxygen concentration. EPA Reference Method 3, 3A, or 3B of appendix A–2 of this part shall be used simultaneously with each of the other EPA reference methods. As an alternative to EPA Reference Method 3B, ASME PTC–19–10–1981–Part 10 may be used (incorporated by reference, *see* §60.17).

(5) The pollutant concentrations shall be adjusted to 7 percent oxygen using the following equation:

$C_{adj}=C_{meas}(20.9-7)/(20.9-\%O_2)$

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.

(6) EPA Reference Method 5 of appendix A–3 or Method 26A or Method 29 of appendix A–8 of this part shall be used to measure the particulate matter emissions. As an alternative, PM CEMS may be used as specified in paragraph (c)(5) of this section.

(7) EPA Reference Method 7 or 7E of appendix A–4 of this part shall be used to measure NO_Xemissions.

(8) EPA Reference Method 6 or 6C of appendix A–4 of this part shall be used to measure SO_2emissions.

(9) EPA Reference Method 9 of appendix A–4 of this part shall be used to measure stack opacity. As an alternative, demonstration of compliance with the PM standards using bag leak detection systems as specified in §60.57c(h) or PM CEMS as specified in paragraph (c)(5) of this section is considered demonstrative of compliance with the opacity requirements.

(10) EPA Reference Method 10 or 10B of appendix A–4 of this part shall be used to measure the CO emissions. As specified in paragraph (c)(4) of this section, use of CO CEMS are required for affected facilities under §60.50c(a)(3) and (4).

(11) EPA Reference Method 23 of appendix A–7 of this part shall be used to measure total dioxin/furan emissions. As an alternative, an owner or operator may elect to sample dioxins/furans by installing, calibrating, maintaining, and operating a continuous automated sampling system for monitoring dioxin/furan emissions as specified in paragraph (c)(6) of this section. For Method 23 of appendix A–7 sampling, the minimum sample time shall be 4 hours per test run. If the affected facility has selected the toxic equivalency standards for dioxins/furans, under §60.52c, the following procedures shall be used to determine compliance:

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

(ii) For each dioxin/furan congener measured in accordance with paragraph (b)(9)(i) of this section, multiply the congener concentration by its corresponding toxic equivalency factor specified in table 2 of this subpart.

(iii) Sum the products calculated in accordance with paragraph (b)(9)(ii) of this section to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

(12) EPA Reference Method 26 or 26A of appendix A–8 of this part shall be used to measure HCl emissions. As an alternative, HCl CEMS may be used as specified in paragraph (c)(5) of this section.

(13) EPA Reference Method 29 of appendix A–8 of this part shall be used to measure Pb, Cd, and Hg emissions. As an alternative, Hg emissions may be measured using ASTM D6784–02 (incorporated by reference, *see* §60.17). As an alternative for Pb, Cd, and Hg, multi-metals CEMS or Hg CEMS, may be used as specified in paragraph (c)(5) of this section. As an alternative, an owner or operator may elect to sample Hg by installing, calibrating, maintaining, and operating a continuous automated sampling system for monitoring Hg emissions as specified in paragraph (c)(7) of this section.

(14) The EPA Reference Method 22 of appendix A–7 of this part shall be used to determine compliance with the fugitive ash emissions limit under §60.52c(c). The minimum observation time shall be a series of three 1-hour observations.

(c) Following the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility shall:

(1) Determine compliance with the opacity limit by conducting an annual performance test (no more than 12 months following the previous performance test) using the applicable procedures and test methods listed in paragraph (b) of this section.

(2) Except as provided in paragraphs (c)(4) and (c)(5) of this section, determine compliance with the PM, CO, and HCl emissions limits by conducting an annual performance test (no more than 12 months following the previous performance test) using the applicable procedures and test methods listed in paragraph (b) of this section. If all three performance tests over a 3-year period indicate compliance with the emissions limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for the subsequent 2 years. At a minimum, a performance test for PM, CO, and HCl shall be conducted every third year (no more than 36 months following the previous performance test). If a performance test conducted every third year indicates compliance with the emissions limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for an additional 2 years. If any performance test indicates noncompliance with the respective emissions limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the emissions limit. The use of the bypass stack during a performance test shall invalidate the performance test.

(3) For an affected facility as defined in §60.50c(a)(1) and (2) and utilizing a large HMIWI, and in §60.50c(a)(3) and (4), determine compliance with the visible emissions limits for fugitive emissions from flyash/bottom ash storage and handling by conducting a performance test using EPA Reference Method 22 of appendix A–7 on an annual basis (no more than 12 months following the previous performance test).

(4) For an affected facility as defined in §60.50c(a)(3) and (4), determine compliance with the CO emissions limit using a CO CEMS according to paragraphs (c)(4)(i) through (c)(4)(iii) of this section:

(i) Determine compliance with the CO emissions limit using a 24-hour block average, calculated as specified in section 12.4.1 of EPA Reference Method 19 of appendix A–7 of this part.

(ii) Operate the CO CEMS in accordance with the applicable procedures under appendices B and F of this part.

(iii) Use of a CO CEMS may be substituted for the CO annual performance test and minimum secondary chamber temperature to demonstrate compliance with the CO emissions limit.

(5) Facilities using CEMS to demonstrate compliance with any of the emissions limits under §60.52c shall:

(i) For an affected facility as defined in §60.50c(a)(1) and (2), determine compliance with the appropriate emissions limit(s) using a 12-hour rolling average, calculated each hour as the average of the previous 12 operating hours.

(ii) For an affected facility as defined in §60.50c(a)(3) and (4), determine compliance with the appropriate emissions limit(s) using a 24-hour block average, calculated as specified in section 12.4.1 of EPA Reference Method 19 of appendix A–7 of this part.

(iii) Operate all CEMS in accordance with the applicable procedures under appendices B and F of this part. For those CEMS for which performance specifications have not yet been promulgated (HCl, multi-metals), this option for an affected facility as defined in §60.50c(a)(3) and (4) takes effect on the date a final performance specification is published in the Federal Register or the date of approval of a site-specific monitoring plan.

(iv) For an affected facility as defined in §60.50c(a)(3) and (4), be allowed to substitute use of an HCl CEMS for the HCl annual performance test, minimum HCl sorbent flow rate, and minimum scrubber liquor pH to demonstrate compliance with the HCl emissions limit.

(v) For an affected facility as defined in §60.50c(a)(3) and (4), be allowed to substitute use of a PM CEMS for the PM annual performance test and minimum pressure drop across the wet scrubber, if applicable, to demonstrate compliance with the PM emissions limit.

(6) An affected facility as defined in §60.50c(a)(3) and (4) using a continuous automated sampling system to demonstrate compliance with the dioxin/furan emissions limits under §60.52c shall record the output of the system and analyze the sample according to EPA Reference Method 23 of appendix A–7 of this part. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to dioxin/furan from monitors is published in the Federal Register or the date of approval of a site-specific monitoring plan. The owner or operator of an affected facility as defined in §60.50c(a)(3) and (4) who elects to continuously sample dioxin/furan emissions instead of sampling and testing using EPA Reference Method 23 of appendix A–7 shall install, calibrate, maintain, and operate a continuous automated sampling system and shall comply with the requirements specified in §60.58b(p) and (q) of subpart Eb of this part.

(7) An affected facility as defined in §60.50c(a)(3) and (4) using a continuous automated sampling system to demonstrate compliance with the Hg emissions limits under §60.52c shall record the output of the system and analyze the sample at set intervals using any suitable determinative technique that can meet appropriate performance criteria. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to Hg from monitors is published in the Federal Register or the date of approval of a site-specific monitoring plan. The owner or operator of an affected facility as defined in §60.50c(a)(3) and (4) who elects to continuously sample Hg emissions instead of sampling and testing using EPA Reference Method 29 of appendix A–8 of this part, or an approved alternative method for measuring Hg emissions, shall install, calibrate, maintain, and operate a continuous automated sampling system and shall comply with the requirements specified in §60.58b(p) and (q) of subpart Eb of this part.

(d) Except as provided in paragraphs (c)(4) through (c)(7) of this section, the owner or operator of an affected facility equipped with a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and wet scrubber shall:

(1) Establish the appropriate maximum and minimum operating parameters, indicated in table 3 of this subpart for each control system, as site specific operating parameters during the initial performance test to determine compliance with the emission limits; and

(2) Following the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, ensure that the affected facility does not operate above any of the applicable maximum operating parameters or below any of the applicable minimum operating parameters listed in table 3 of this subpart and measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at all times except during periods of startup, shutdown and malfunction. Operating parameter limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating parameter(s) shall constitute a violation of established operating parameter(s).

(e) Except as provided in paragraph (i) of this section, for affected facilities equipped with a dry scrubber followed by a fabric filter:

(1) Operation of the affected facility 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 CO emission limit.

(2) Operation of the affected facility above the maximum fabric filter inlet temperature, above the maximum charge rate, and below the minimum dioxin/furan sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit.

(3) Operation of the affected facility above the maximum charge rate and below the minimum HCl sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit.

(4) Operation of the affected facility above the maximum charge rate and below the minimum Hg sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit.

(5) Use of the bypass stack shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd and Hg emissions limits.

(6) Operation of the affected facility as defined in §60.50c(a)(3) and (4) above the CO emissions limit as measured by the CO CEMS specified in paragraph (c)(4) of this section shall constitute a violation of the CO emissions limit.

(7) For an affected facility as defined in §60.50c(a)(3) and (4), failure to initiate corrective action within 1 hour of a bag leak detection system alarm; or failure to operate and maintain the fabric filter such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period shall constitute a violation of the PM emissions limit. 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 is counted as a minimum of 1 hour. If it takes longer than 1 hour to initiate corrective action, the alarm time is counted as the actual amount of time taken to initiate corrective action. If the bag leak detection system is used to demonstrate compliance with the opacity limit, this would also constitute a violation of the opacity emissions limit.

(8) Operation of the affected facility as defined in §60.50c(a)(3) and (4) above the PM, HCl, Pb, Cd, and/or Hg emissions limit as measured by the CEMS specified in paragraph (c)(5) of this section shall constitute a violation of the applicable emissions limit.

(9) Operation of the affected facility as defined in §60.50c(a)(3) and (4) above the dioxin/furan emissions limit as measured by the continuous automated sampling system specified in paragraph (c)(6) of this section shall constitute a violation of the dioxin/furan emissions limit.

(10) Operation of the affected facility as defined in §60.50c(a)(3) and (4) above the Hg emissions limit as measured by the continuous automated sampling system specified in paragraph (c)(7) of this section shall constitute a violation of the Hg emissions limit.

(f) Except as provided in paragraph (i) of this section, for affected facilities equipped with a wet scrubber:

(1) Operation of the affected facility above the maximum charge rate and below the minimum pressure drop across the wet scrubber or below the minimum horsepower or amperage to the system (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the PM emission limit.

(2) Operation of the affected facility 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 CO emission limit.

(3) Operation of the affected facility above the maximum charge rate, below the minimum secondary chamber temperature, and below the minimum scrubber liquor flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit.

(4) Operation of the affected facility above the maximum charge rate and below the minimum scrubber liquor pH (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit.

(5) Operation of the affected facility above the maximum flue gas temperature and above the maximum charge rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit.

(6) Use of the bypass stack shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd and Hg emissions limits.

(7) Operation of the affected facility as defined in §60.50c(a)(3) and (4) above the CO emissions limit as measured by the CO CEMS specified in paragraph (c)(4) of this section shall constitute a violation of the CO emissions limit.

(8) Operation of the affected facility as defined in §60.50c(a)(3) and (4) above the PM, HCl, Pb, Cd, and/or Hg emissions limit as measured by the CEMS specified in paragraph (c)(5) of this section shall constitute a violation of the applicable emissions limit.

(9) Operation of the affected facility as defined in §60.50c(a)(3) and (4) above the dioxin/furan emissions limit as measured by the continuous automated sampling system specified in paragraph (c)(6) of this section shall constitute a violation of the dioxin/furan emissions limit.

(10) Operation of the affected facility as defined in §60.50c(a)(3) and (4) above the Hg emissions limit as measured by the continuous automated sampling system specified in paragraph (c)(7) of this section shall constitute a violation of the Hg emissions limit.

(g) Except as provided in paragraph (i) of this section, for affected facilities equipped with a dry scrubber followed by a fabric filter and a wet scrubber:

(1) Operation of the affected facility 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 CO emission limit.

(2) Operation of the affected facility above the maximum fabric filter inlet temperature, above the maximum charge rate, and below the minimum dioxin/furan sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the dioxin/furan emission limit.

(3) Operation of the affected facility above the maximum charge rate and below the minimum scrubber liquor pH (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the HCl emission limit.

(4) Operation of the affected facility above the maximum charge rate and below the minimum Hg sorbent flow rate (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the Hg emission limit.

(5) Use of the bypass stack shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd and Hg emissions limits.

(6) Operation of the affected facility as defined in §60.50c(a)(3) and (4) above the CO emissions limit as measured by the CO CEMS specified in paragraph (c)(4) of this section shall constitute a violation of the CO emissions limit.

(7) For an affected facility as defined in §60.50c(a)(3) and (4), failure to initiate corrective action within 1 hour of a bag leak detection system alarm; or failure to operate and maintain the fabric filter such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period shall constitute a violation of the PM emissions limit. 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 is counted as a minimum of 1 hour. If it takes longer than 1 hour to initiate corrective action, the alarm time is counted as the actual amount of time taken to initiate corrective action. If the bag leak detection system is used to demonstrate compliance with the opacity limit, this would also constitute a violation of the opacity emissions limit.

(8) Operation of the affected facility as defined in §60.50c(a)(3) and (4) above the PM, HCl, Pb, Cd, and/or Hg emissions limit as measured by the CEMS specified in paragraph (c)(5) of this section shall constitute a violation of the applicable emissions limit.

(9) Operation of the affected facility as defined in §60.50c(a)(3) and (4) above the dioxin/furan emissions limit as measured by the continuous automated sampling system specified in paragraph (c)(6) of this section shall constitute a violation of the dioxin/furan emissions limit.

(10) Operation of the affected facility as defined in §60.50c(a)(3) and (4) above the Hg emissions limit as measured by the continuous automated sampling system specified in paragraph (c)(7) of this section shall constitute a violation of the Hg emissions limit.

(h) The owner or operator of an affected facility as defined in §60.50c(a)(3) and (4) equipped with selective noncatalytic reduction technology shall:

(1) Establish the maximum charge rate, the minimum secondary chamber temperature, and the minimum reagent flow rate as site specific operating parameters during the initial performance test to determine compliance with the emissions limits;

(2) Following the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, ensure that the affected facility does not operate above the maximum charge rate, or below the minimum secondary chamber temperature or the minimum reagent flow rate 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.

(3) Except as provided in paragraph (i) of this section, operation of the affected facility above the maximum charge rate, below the minimum secondary chamber temperature, and below the minimum reagent flow rate simultaneously shall constitute a violation of the NO_Xemissions limit.

(i) The owner or operator of an affected facility may conduct a repeat performance test within 30 days of violation of applicable operating parameter(s) to demonstrate that the affected facility is not in violation of the applicable emissions limit(s). Repeat performance tests conducted pursuant to this paragraph shall be conducted using the identical operating parameters that indicated a violation under paragraph (e), (f), (g), or (h) of this section.

(j) The owner or operator of an affected facility using an air pollution control device other than a dry scrubber followed by a fabric filter, a wet scrubber, a dry scrubber followed by a fabric filter and a wet scrubber, or selective noncatalytic reduction technology to comply with the emissions limits under §60.52c shall petition the Administrator for other site-specific operating parameters to be established during the initial performance test and continuously

monitored thereafter. The owner or operator shall not conduct the initial performance test until after the petition has been approved by the Administrator.

(k) The owner or operator of an affected facility may conduct a repeat performance test at any time to establish new values for the operating parameters. The Administrator may request a repeat performance test at any time.

[62 FR 48382, Sept. 15, 1997, as amended at 65 FR 61753, Oct. 17, 2000; 74 FR 51409, Oct. 6, 2009]

§ 60.57c Monitoring requirements.

(a) Except as provided in §60.56c(c)(4) through (c)(7), the owner or operator of an affected facility shall install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the applicable maximum and minimum operating parameters listed in Table 3 to this subpart (unless CEMS are used as a substitute for certain parameters as specified) such that these devices (or methods) measure and record values for these operating parameters at the frequencies indicated in Table 3 of this subpart at all times.

(b) The owner or operator of an affected facility as defined in §60.50c(a)(3) and (4) that uses selective noncatalytic reduction technology shall install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the operating parameters listed in §60.56c(h) such that the devices (or methods) measure and record values for the operating parameters at all times. Operating parameter values shall be measured and recorded at the following minimum frequencies:

(1) Maximum charge rate shall be measured continuously and recorded once each hour;

(2) Minimum secondary chamber temperature shall be measured continuously and recorded once each minute; and

(3) Minimum reagent flow rate shall be measured hourly and recorded once each hour.

(c) The owner or operator of an affected facility 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.

(d) The owner or operator of an affected facility using an air pollution control device other than a dry scrubber followed by a fabric filter, a wet scrubber, a dry scrubber followed by a fabric filter and a wet scrubber, or selective noncatalytic reduction technology to comply with the emissions limits under §60.52c shall install, calibrate (to manufacturers' specifications), maintain, and operate the equipment necessary to monitor the site-specific operating parameters developed pursuant to §60.56c(j).

(e) The owner or operator of an affected facility shall obtain monitoring data at all times during HMIWI 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 for 90 percent of the operating days per calendar quarter that the affected facility is combusting hospital waste and/or medical/infectious waste.

(f) The owner or operator of an affected facility as defined in §60.50c(a)(3) and (4) shall ensure that each HMIWI subject to the emissions limits in §60.52c undergoes an initial air pollution control device inspection that is at least as protective as the following:

(1) At a minimum, an inspection shall include the following:

(i) Inspect air pollution control device(s) for proper operation, if applicable;

(ii) Ensure proper calibration of thermocouples, sorbent feed systems, and any other monitoring equipment; and

(iii) Generally observe that the equipment is maintained in good operating condition.

(2) 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 Administrator establishing a date whereby all necessary repairs of the designated facility shall be completed.

(g) The owner or operator of an affected facility as defined in §60.50c(a)(3) and (4) shall ensure that each HMIWI subject to the emissions limits under §60.52c undergoes an air pollution control device inspection annually (no more than 12 months following the previous annual air pollution control device inspection), as outlined in paragraphs (f)(1) and (f)(2) of this section.

(h) For affected facilities as defined in §60.50c(a)(3) and (4) that use an air pollution control device that includes a fabric filter and are not demonstrating compliance using PM CEMS, determine compliance with the PM emissions limit using a bag leak detection system and meet the requirements in paragraphs (h)(1) through (h)(12) of this section for each bag leak detection system.

(1) Each triboelectric bag leak detection system may be installed, calibrated, operated, and maintained according to the "Fabric Filter Bag Leak Detection Guidance," (EPA–454/R–98–015, September 1997). This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality Planning and Standards; Sector Policies and Programs Division; Measurement Policy Group (D–243–02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emissions Measurement Center Continuous Emissions Monitoring. Other types of bag leak detection systems shall be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

(2) The bag leak detection system shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(3) The bag leak detection system sensor shall provide an output of relative PM loadings.

(4) The bag leak detection system shall be equipped with a device to continuously record the output signal from the sensor.

(5) The bag leak detection system shall be equipped with an audible alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm shall be located where it is easily heard by plant operating personnel.

(6) For positive pressure fabric filter systems, a bag leak detector shall be installed in each baghouse compartment or cell.

(7) For negative pressure or induced air fabric filters, the bag leak detector shall be installed downstream of the fabric filter.

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

(9) The baseline output shall be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time according to section 5.0 of the "Fabric Filter Bag Leak Detection Guidance."

(10) Following initial adjustment of the system, the sensitivity or range, averaging period, alarm set points, or alarm delay time may not be adjusted. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection that demonstrates that the fabric filter is in good operating condition. Each adjustment shall be recorded.

(11) Record the results of each inspection, calibration, and validation check.

(12) Initiate corrective action within 1 hour of a bag leak detection system alarm; operate and maintain the fabric filter such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting

period. 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 is counted as a minimum of 1 hour. If it takes longer than 1 hour to initiate corrective action, the alarm time is counted as the actual amount of time taken to initiate corrective action.

[62 FR 48382, Sept. 15, 1997, as amended at 74 FR 51412, Oct. 6, 2009]

§ 60.58c Reporting and recordkeeping requirements.

(a) The owner or operator of an affected facility shall submit notifications, as provided by §60.7. In addition, the owner or operator shall submit the following information:

(1) Prior to commencement of construction;

(i) A statement of intent to construct;

(ii) The anticipated date of commencement of construction; and

(iii) All documentation produced as a result of the siting requirements of §60.54c.

(2) Prior to initial startup;

(i) The type(s) of waste to be combusted;

(ii) The maximum design waste burning capacity;

(iii) The anticipated maximum charge rate; and

(iv) If applicable, the petition for site-specific operating parameters under §60.56c(j).

(b) The owner or operator of an affected facility shall maintain the following information (as applicable) for a period of at least 5 years:

(1) Calendar date of each record;

(2) Records of the following data:

(i) Concentrations of any pollutant listed in §60.52c or measurements of opacity as determined by the continuous emission monitoring system (if applicable);

(ii) Results of fugitive emissions (by EPA Reference Method 22) tests, if applicable;

(iii) HMIWI charge dates, times, and weights and hourly charge rates;

(iv) Fabric filter inlet temperatures during each minute of operation, as applicable;

(v) Amount and type of dioxin/furan sorbent used during each hour of operation, as applicable;

(vi) Amount and type of Hg sorbent used during each hour of operation, as applicable;

(vii) Amount and type of HCl sorbent used during each hour of operation, as applicable;

(viii) For affected facilities as defined in §60.50c(a)(3) and (4), amount and type of NO_Xreagent used during each hour of operation, as applicable;

(ix) Secondary chamber temperatures recorded during each minute of operation;

(x) Liquor flow rate to the wet scrubber inlet during each minute of operation, as applicable;

(xi) Horsepower or amperage to the wet scrubber during each minute of operation, as applicable;

(xii) Pressure drop across the wet scrubber system during each minute of operation, as applicable,

(xiii) Temperature at the outlet from the wet scrubber during each minute of operation, as applicable;

(xiv) pH at the inlet to the wet scrubber during each minute of operation, as applicable,

(xv) Records indicating use of the bypass stack, including dates, times, and durations, and

(xvi) For affected facilities complying with §60.56c(j) and §60.57c(d), the owner or operator shall maintain all operating parameter data collected;

(xvii) For affected facilities as defined in §60.50c(a)(3) and (4), records of the annual air pollution control device inspections, any required maintenance, and any repairs not completed within 10 days of an inspection or the timeframe established by the Administrator.

(xviii) For affected facilities as defined in §60.50c(a)(3) and (4), records of each bag leak detection system alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken, as applicable.

(xix) For affected facilities as defined in §60.50c(a)(3) and (4), concentrations of CO as determined by the continuous emissions monitoring system.

(3) Identification of calendar days for which data on emission rates or operating parameters specified under paragraph (b)(2) of this section have not been obtained, with an identification of the emission rates or operating parameters not measured, reasons for not obtaining the data, and a description of corrective actions taken.

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

(5) Identification of calendar days for which data on emission rates or operating parameters specified under paragraph (b)(2) of this section exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances, and a description of corrective actions taken.

(6) The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emissions limits and/or to establish or re-establish operating parameters, as applicable, and a description, including sample calculations, of how the operating parameters were established or re-established, if applicable.

(7) All documentation produced as a result of the siting requirements of §60.54c;

(8) Records showing the names of HMIWI operators who have completed review of the information in §60.53c(h) as required by §60.53c(i), including the date of the initial review and all subsequent annual reviews;

(9) Records showing the names of the HMIWI operators who have completed the operator training requirements, including documentation of training and the dates of the training;

(10) Records showing the names of the HMIWI operators who have met the criteria for qualification under §60.53c and the dates of their qualification; and

(11) Records of calibration of any monitoring devices as required under §60.57c(a) through (d).

(c) The owner or operator of an affected facility shall submit the information specified in paragraphs (c)(1) through (c)(4) of this section no later than 60 days following the initial performance test. All reports shall be signed by the facilities manager.

(1) The initial performance test data as recorded under §60.56c(b)(1) through (b)(14), as applicable.

(2) The values for the site-specific operating parameters established pursuant to §60.56c(d), (h), or (j), as applicable, and a description, including sample calculations, of how the operating parameters were established during the initial performance test.

(3) The waste management plan as specified in §60.55c.

(4) For each affected facility as defined in §60.50c(a)(3) and (4) that uses a bag leak detection system, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in §60.57c(h).

(d) An annual report shall be submitted 1 year following the submissions of the information in paragraph (c) of this section and subsequent reports shall be submitted no more than 12 months following the previous report (once the unit is subject to permitting requirements under title V of the Clean Air Act, the owner or operator of an affected facility must submit these reports semiannually). The annual report shall include the information specified in paragraphs (d)(1) through (11) of this section. All reports shall be signed by the facilities manager.

(1) The values for the site-specific operating parameters established pursuant to §60.56c(d), (h), or (j), as applicable.

(2) The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded for the calendar year being reported, pursuant to §60.56c(d), (h), or (j), as applicable.

(3) The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded pursuant to §60.56c(d), (h), or (j) for the calendar year preceding the year being reported, in order to provide the Administrator with a summary of the performance of the affected facility over a 2-year period.

(4) Any information recorded under paragraphs (b)(3) through (b)(5) of this section for the calendar year being reported.

(5) Any information recorded under paragraphs (b)(3) through (b)(5) of this section for the calendar year preceding the year being reported, in order to provide the Administrator with a summary of the performance of the affected facility over a 2-year period.

(6) If a performance test was conducted during the reporting period, the results of that test.

(7) If no exceedances or malfunctions were reported under paragraphs (b)(3) through (b)(5) of this section for the calendar year being reported, a statement that no exceedances occurred during the reporting period.

(8) Any use of the bypass stack, the duration, reason for malfunction, and corrective action taken.

(9) For affected facilities as defined in §60.50c(a)(3) and (4), records of the annual air pollution control device inspection, any required maintenance, and any repairs not completed within 10 days of an inspection or the timeframe established by the Administrator.

(10) For affected facilities as defined in §60.50c(a)(3) and (4), records of each bag leak detection system alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken, as applicable.

(11) For affected facilities as defined in §60.50c(a)(3) and (4), concentrations of CO as determined by the continuous emissions monitoring system.

(e) The owner or operator of an affected facility shall submit semiannual reports containing any information recorded under paragraphs (b)(3) through (b)(5) of this section no later than 60 days following the reporting period. The first semiannual reporting period ends 6 months following the submission of information in paragraph (c) of this section.

Subsequent reports shall be submitted no later than 6 calendar months following the previous report. All reports shall be signed by the facilities manager.

(f) All records specified under paragraph (b) of this section shall be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Administrator.

(g) For affected facilities, as defined in §60.50c(a)(3) and (4), that choose to submit an electronic copy of stack test reports to EPA's WebFIRE data base, as of December 31, 2011, the owner or operator of an affected facility shall enter the test data into EPA's data base using the Electronic Reporting Tool located at *http://www.epa.gov/ttn/chief/ert/ert_tool.html.*

[62 FR 48382, Sept. 15, 1997, as amended at 74 FR 51413, Oct. 6, 2009; 76 FR 18413, Apr. 4, 2011]

Table 1A to Subpart Ec of Part 60—Emissions Limits for Small, Medium, and Large HMIWI at Affected Facilities as Defined in §60.50c(a)(1) and (2)

Pollutant	Units (7 percent oxygen, dry basis)	Emissions limits			Averaging time[1]	Method for demonstrating compliance[2]
		HMIWI size				
		Small	Medium	Large		
Particulate matter	Milligrams per dry standard cubic meter (grains per dry standard cubic foot)	69 (0.03)	34 (0.015)	34 (0.015)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 5 of appendix A–3 of part 60, or EPA Reference Method M 26A or 29 of appendix A–8 of part 60.
Carbon monoxide	Parts per million by volume	40	40	40	3-run average (1-hour minimum sample time per run)	EPA Reference Method 10 or 10B of appendix A–4 of part 60.
Dioxins/furans	Nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)	125 (55) or 2.3 (1.0)	25 (11) or 0.6 (0.26)	25 (11) or 0.6 (0.26)	3-run average (4-hour minimum sample time per run)	EPA Reference Method 23 of appendix A–7 of part 60.
Hydrogen chloride	Parts per million by volume or percent reduction	15 or 99%	15 or 99%	15 or 99%	3-run average (1-hour minimum sample time per run)	EPA Reference Method 26 or 26A of appendix A–8 of part 60.
Sulfur dioxide	Parts per million by volume	55	55	55	3-run average (1-hour minimum sample time per run)	EPA Reference Method 6 or 6C of appendix A–4 of part 60.
Nitrogen oxides	Parts per million by volume	250	250	250	3-run average (1-hour minimum	EPA Reference Method 7 or 7E of appendix A–4 of part 60.

					sample time per run)	
Lead	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction	1.2 (0.52) or 70%	0.07 (0.03) or 98%	0.07 (0.03) or 98%	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A–8 of part 60.
Cadmium	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction	0.16 (0.07) or 65%	0.04 (0.02) or 90%	0.04 (0.02) or 90%	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A–8 of part 60.
Mercury	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) 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 part 60.

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

[74 FR 51414, Oct. 6, 2009, as amended at 76 FR 18414, Apr. 4, 2011]

Table 1B to Subpart Ec of Part 60—Emissions Limits for Small, Medium, and Large HMIWI at Affected Facilities as Defined in §60.50c(a)(3) and (4)

Pollutant	Units (7 percent oxygen, dry basis)	Emissions limits			Averaging time[1]	Method for demonstrating compliance[2]
		HMIWI size				
		Small	Medium	Large		
Particulate matter	Milligrams per dry standard cubic meter (grains per dry standard cubic foot)	66 (0.029)	22 (0.0095)	18 (0.0080)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 5 of appendix A–3 of part 60, or EPA Reference Method M 26A or 29 of appendix A–8 of part 60.
Carbon monoxide	Parts per million by volume	20	1.8	11	3-run average (1-hour minimum sample time per run)	EPA Reference Method 10 or 10B of appendix A–4 of part 60.
Dioxins/furans	Nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)	16 (7.0) or 0.013 (0.0057)	0.47 (0.21) or 0.014 (0.0061)	9.3 (4.1) or 0.035 (0.015)	3-run average (4-hour minimum sample time per run)	EPA Reference Method 23 of appendix A–7 of part 60.
Hydrogen	Parts per million by volume	15	7.7	5.1	3-run average	EPA Reference Method

chloride					(1-hour minimum sample time per run)	26 or 26A of appendix A–8 of part 60.
Sulfur dioxide	Parts per million by volume	1.4	1.4	8.1	3-run average (1-hour minimum sample time per run)	EPA Reference Method 6 or 6C of appendix A–4 of part 60.
Nitrogen oxides	Parts per million by volume	67	67	140	3-run average (1-hour minimum sample time per run)	EPA Reference Method 7 or 7E of appendix A–4 of part 60.
Lead	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)	0.31 (0.14)	0.018 (0.0079)	0.00069 (0.00030)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A–8 of part 60.
Cadmium	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)	0.017 (0.0074)	0.0098 (0.0043)	0.00013 (0.000057)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A–8 of part 60.
Mercury	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)	0.014 (0.0061)	0.0035 (0.0015)	0.0013 (0.00057)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A–8 of part 60.

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

[74 FR 51414, Oct. 6, 2009, as amended at 76 FR 18414, Apr. 4, 2011]

Table 2 of Subpart Ec to Part 60—Toxic Equivalency Factors

Dioxin/furan congener	Toxic equivalency factor
2,3,7,8-tetrachlorinated dibenzo-p-dioxin	1
1,2,3,7,8-pentachlorinated dibenzo-p-dioxin	0.5
1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin	0.01
octachlorinated dibenzo-p-dioxin	0.001
2,3,7,8-tetrachlorinated dibenzofuran	0.1

2,3,4,7,8-pentachlorinated dibenzofuran	0.5
1,2,3,7,8-pentachlorinated dibenzofuran	0.05
1,2,3,4,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,7,8,9-hexachlorinated dibenzofuran	0.1
2,3,4,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzofuran	0.01
1,2,3,4,7,8,9-heptachlorinated dibenzofuran	0.01
Octachlorinated dibenzofuran	0.001

Table 3 to Subpart Ec of Part 60—Operating Parameters To Be Monitored and Minimum Measurement and Recording Frequencies

	Minimum frequency		Control system		
Operating parameters to be monitored	**Data measurement**	**Data recording**	**Dry scrubber followed by fabric filter**	**Wet scrubber**	**Dry scrubber followed by fabric filter and wet scrubber**
Maximum operating parameters:					
Maximum charge rate	Continuous	1×hour	✓	✓	✓
Maximum fabric filter inlet temperature	Continuous	1×minute	✓		✓
Maximum flue gas temperature	Continuous	1×minute	✓	✓	
Minimum operating parameters:					
Minimum secondary chamber temperature	Continuous	1×minute	✓	✓	✓
Minimum dioxin/furan sorbent flow rate	Hourly	1×hour	✓		✓
Minimum HCI sorbent flow rate	Hourly	1×hour	✓	✓	✓
Minimum mercury (Hg) sorbent flow rate	Hourly	1×hour	✓	✓	✓
Minimum pressure drop across the wet scrubber or minimum horsepower or amperage to wet scrubber	Continuous	1×minute	✓	✓	✓
Minimum scrubber liquor flow rate	Continuous	1×minute	✓	✓	✓
Minimum scrubber liquor pH	Continuous	1×minute	✓	✓	✓

PERMITTEE

Stericycle, Inc.
254 W. Keene Road
Apopka, FL 32703

PERMITTING AUTHORITY

Orange County Environmental Protection Division
Air Quality Management
800 Mercy Drive, Suite 4
Orlando, Florida 32808

PROJECT

Air Permit Number 0950169-008-AC
Title V Source Air Construction Permit
Stericycle, Inc., Apopka Facility

NSPS 40 CFR Part 60 Subpart Ce was amended October 6, 2009. The amended Subpart Ce was adopted by Rule 62-204-800(9)(g), F.A.C.

This project is a construction permit, processed concurrently with a Title V operation permit renewal and revision (permit 0950169-007-AV), for a Hospital/Medical/Infectious Waste Incinerator with an air pollution control system. This construction permit authorizes modification of the existing hospital/medical/infectious waste incinerator air pollution control system to add a selective non-catalytic reduction system to reduce NOx emissions and a wet scrubber to reduce other air emissions. The proposed modifications are intended to meet the emission standards in the amended Subpart Ce. This permit also incorporates other provisions of the amended 40 CFR Part 60 Subpart Ce and Rule 62-204.800(9)(g), F.A.C.

The incinerator has primary and secondary combustion chambers. A quench tower follows the secondary chamber, followed by the air pollution control system. The existing air pollution control system consists of a dry scrubber and a fabric filter (bag house). The construction permit will modify the existing facility to:

1. Install a selective non-catalytic reduction (SNCR) system at the exit of the secondary chamber, where ammonia will be injected into the exhaust stream to control NOx.
2. Install a wet scrubber with an absorber and a demister at the exit of the bag house, to control SO_2 and HCl.

The air pollution control system qualifies as a dry scrubber followed by a fabric filter and a wet scrubber, and an SNCR system, identified in 40 CFR Part 60 Subpart Ec, section 60.56c(g). The modified air pollution control system configuration is shown in the EU description below.

Facility ID Number 0950169	
EU ID	**Emission Unit Description**
001	Hospital/Medical/Infectious Waste Incinerator The continuous incinerator is a Joy Manufacturing Model 2500-TESI constructed in 1991, with primary and secondary combustion chambers. The incinerator is equipped with temperature controls located at the exit of the primary and secondary chambers. The maximum charging rate is 1,900 lb/hr, and the minimum secondary chamber temperature is 1,800^{o}F. The incinerator EU includes the air pollution control system. The incinerator has an afterburner in the secondary chamber followed by a selective non-catalytic reduction (SNCR) system. The SNCR system injects ammonia into the exhaust gases to reduce NOx emissions. The SNCR system is followed by a duct with a bypass stack and a quench tower and the existing dry scrubbing system. The dry scrubbing system includes a gas/solid mixer section, lime injection, carbon injection, and a bag house to control emissions. The bag house collector material is P84 self-supported felt with singed finish, Tri-Loft fabric, or a material with equivalent or better performance characteristics. The bag house is followed by a wet scrubber containing an absorber and a de-mister.

A new induced draft fan will replace the existing induced draft fan.

The facility also includes a lime reagent storage silo equipped with a bag house, a diesel powered fire pump and an emergency generator.

Rule 62-204-800(9)(g), F.A.C., set a compliance date of June 1, 2012. The facility has requested an extension of the compliance date to June 1, 2014. On the June 1, 2014 compliance date, this facility is subject to:

1. Rule 62-204.800(9)(g), Hospital/Medical/Infectious Waste Incinerators
2. Rule 62-296.401(4), F.A.C., Biological Waste Incinerators
3. 40 CFR Part 60 Subpart Ce, Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators, amended October 6, 2009.
4. Applicable sections of 40 CFR Part 60 Subpart Ec, Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996.

PSD APPLICABILITY

This facility is a Title V source by EPA designation. This Title V source construction permit project will result in a reduction in emissions. PSD does not apply to this source.

NOTICE AND PUBLICATION

The EPD distributed a draft minor source air construction permit package on December 28, 2011. The applicant published the Public Notice in the Apopka Chief on January 13, 2012. The EPD received the proof of publication on January 20, 2012. No requests for administrative hearings or requests for extensions of time to file a petition for administrative hearing were received.

COMMENTS

The EPD found that it had mis-numbered condition 36, Previous Test Results, on page 16 of 19 and later conditions of the draft permit. The mis-numbering was corrected on the final construction permit. The condition numbers listed in this COMMENTS section refer to the numbers used in the draft permit.

No comments on the Draft Permit were received from the public, the Department's Central District Office or the EPA Region 4 Office. The applicant had the following comments.

1. Please correct the global misspelling of Kelly Roberts as "Kelley Roberts".

EPD Response: The EPD agrees and has changed the final construction permit.

2. Page 4 of 19, 2., please correct the misspelling of HCl as "Hal". Please check globally for this. [See also page 6 of 19 for second example]

EPD Response: The EPD agrees and has changed the final construction permit.

3. Page 8 of 19, 10., please correct the misspelling of units of measure of mg/dscm and gr/dscf as "mg/disc" and "go/disc".

EPD Response: The EPD agrees and has changed the final construction permit.

4. Page 13 of 19. , please correct the grammar: methods are instead of "method is".

EPD Response: The EPD agrees and has changed the final construction permit.

5. Page 13 of 19. Stericycle requests the June 1, 2012 testing requirement be changed to June 1, 2014 to reflect the extended compliance date.

EPD Response: The facility will not be subject to Rule 62-204.800(9)(g)7.d., F.A.C., until the extended compliance date of June 1, 2014. Therefore, the EPD agrees and has changed the final construction permit. The EPD has also changed rule citation Rule 62-296.401(1)(e)2., F.A.C., to Rule 62-296.401(4)(e)2., F.A.C., on the final construction permit.

6. Page 14 of 19, 32. Stericycle requests deletion of the operating parameter to be monitored: minimum pressure drop across wet scrubber. Stericycle will be petitioning EPA for alternative monitoring.

EPD Response: This condition is required by 40 CFR Part 60 Subpart Ec section 60.56c(d) and Table 3 of that subpart, unless Stericycle's future petition is approved by US EPA. To allow for that possibility, the EPD has added a note for that parameter to the table for condition 32 of the final construction permit. That note states "[1]This parameter shall be monitored unless US EPA approves the alternative monitoring procedure to be requested by the permittee."

7. Page 15 of 19, 35. Stericycle requests deletion of this condition. Existing sources are not subject to 40 CFR 60.56(h); only affected facilities as defined in 60.50c(a)(3) and (4) are subject to 40 CFR Part 60.56(h). Please also delete 36.b for the same reasons.

EPD Response: EPD interprets 60.50c(a)(3) and (4) to apply to Stericycle. Paragraph (3) refers to certain facilities; OR (4) HMIWI that commence modification after April 6, 2010. Stericycle's HMIWI will be modified after April 6, 2010, so it is subject to 60.56c(h). How could Stericycle provide reasonable assurance of NOx control without monitoring these operating parameters for the SNCR system?

EPD discussed its concerns regarding NOx emissions with Stericycle via teleconference. Stericycle provided the following additional response.

Stericycle disagrees that the HMIWI will be 'modified' and is therefore subject to 60.50c(3) or (4). § 60.32e, designated facilities, addresses existing units that are making physical or operational changes to comply with the emission limits: §60.32e (h) Physical or operational changes made to an existing HMIWI unit solely for the purpose of complying with emission guidelines under this subpart are not

considered a modification and do not result in an existing HMIWI unit becoming subject to the provisions of subpart Ec (see § 60.50c).]

As a result, §60.56c(h) does not apply to Stericycle.

Stericycle recognizes that EPD is looking for reasonable assurance of NOx control and as a result proposes the following conditions:
(1) Establish the maximum charge rate, the minimum secondary chamber temperature, and the minimum reagent flow rate as site specific operating parameters during the initial performance test to determine compliance with the emissions limits;
(2) Following the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, ensure that the affected facility does not operate above the maximum charge rate, or below the minimum secondary chamber temperature or the minimum reagent flow rate 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.

EPD Response: The EPD agrees that the construction proposed by this permit does not constitute a modification according to §60.32e(h). Stericycle's recommended language does not significantly change conditions 35.a. and 35.b. (Standards for Hospital/Medical/Infectious Waste Incinerators Monitoring Requirements) of the draft permit, but omits condition 35.c. of the draft permit. Condition 35.c. defines a violation of the NOx emissions limit based on monitoring of operating parameters required by condition 36.b. of the draft permit. However, Stericycle's recommended language requires the monitoring of condition 36.b. to ensure that operating parameters meet the requirements of condition 35.b. Conditions 35.a., 35.b. and 36.b of the draft permit provide reasonable assurance that the NOx emission limits of this permit and the NSPS will be met. The EPD omitted condition 35.c. of the draft permit from the final construction permit.

8. Page 17 of 19, 39. Please delete k. – "Temperature at the outlet from the wet scrubber during each minute of operation." This parameter is not required to be monitored for the control configuration that Stericycle is employing.

EPD Response: The temperature at the outlet of the wet scrubber is required by section 60.58c(b)(2)(xiii). Please explain why that temperature is not required to be monitored.

EPD discussed its wet scrubber question with Stericycle via teleconference. Stericycle provided the following additional response.
§60.58c(b) requires an owner or operator to keep records, as applicable, for a period of 5 years, with the specific data detailed in §60.58c(b)(2). §60.58c(b)(2)(xiii) reads "temperature at the outlet from the wet scrubber system during each minute of operation, as applicable." In reviewing the underlying compliance and performance testing requirements of §60.56c and the monitoring requirements of §60.57c (including Table 3), temperature at the outlet from the wet scrubber system, is not identified for any air pollution control configuration. The parameter isn't required to be monitored nor is the parameter a compliance indicator.

Additionally, Stericycle does not anticipate temperature fluctuations downstream of the baghouse/fabric filter. Stericycle currently monitors baghouse/fabric filter inlet temperature. Stericycle will monitor minimum scrubber liquor pH and flow rate.

Stericycle will petition EPA for site specific monitoring and per EPD's suggestion above, agrees with an inclusion of the note "Unless EPA approves alternative monitoring procedure to be requested by permittee." for the parameter: "minimum pressure drop across the wet scrubber."

EPD Response: The EPD accepts Stericycle's conclusion that monitoring the temperature at the outlet of the wet scrubber is not required. The EPD omitted condition 39.k. of the draft permit from the final construction permit.

CONCLUSION

The final action is to issue the permit with the minor changes, corrections and clarifications as described above.