

April 12, 2012

CERTIFIED MAIL: 91 7108 2133 3939 2160 5564

NOTICE OF FINAL TITLE V AIR OPERATION PERMIT

In the Matter of an
Application for Permit Revision and Renewal:

Kelly Roberts
Environmental Compliance Manager
Stericycle, Inc.
254 W. Keene Road
Apopka, FL 32703

FINAL Permit Project No.: 0950169-007-AV
Stericycle, Inc., Apopka Facility
Orange County

Enclosed is the FINAL Permit, No. 0950169-007-AV, for the Title V Air Operation Permit Revision and Renewal. The purpose is to renew the operation permit and revise it to incorporate the terms and conditions of the air construction permit, No. 0950169-008-AC, for a Hospital/Medical/Infectious Waste Incinerator. The facility is located in Orange County. This permit revision is issued pursuant to Chapter 403, Florida Statutes (F.S.). There were no comments received from Region 4, U.S. EPA, regarding the PROPOSED Permit.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the permitting authority in the Legal Office; and with the clerk of the Department of Environmental Protection in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station #35, 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 of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the permitting authority.

Executed in Orlando, Florida.

Orange County
Environmental Protection Division

Jodi D. Dittell
Environmental Program Supervisor

(2)DL/JK/JD:bh

Enclosures

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL TITLE V AIR OPERATION PERMIT (including the FINAL Determination and the FINAL Permit) was sent by U.S. e-certified mail or electronically (with Received Receipt) before the close of business on _____ to the person(s) listed or as otherwise noted:

Kelly Roberts, Environmental Compliance Manager, Stericycle, Inc., Apopka Facility

The undersigned duly designated deputy agency clerk hereby certifies that a copy of this NOTICE OF FINAL TITLE V AIR OPERATION PERMIT was sent by U.S. e-certified mail or electronically (with Received Receipt) before the close of business on _____ to the persons listed or as otherwise noted:

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)
Katy Forney, U.S. EPA Region 4: forney.kathleen@epamail.epa.gov
Barbara Friday, DEP BAR: barbara.friday@dep.state.fl.us (for posting with U.S. EPA, Region 4

Clerk Stamp

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

(Clerk)

(Date)

FINAL Determination

I. Comments.

No comments were received from the USEPA during their 45 day review period of the PROPOSED Permit. The EPD changed both references to the diesel powered fire water pump in Section I facility descriptions, from “water pump” to “fire pump” to be consistent throughout the permit with the wording in the federal RICE regulations.

II. Conclusion.

In conclusion, the permitting authority hereby issues the FINAL Permit.

Stericycle, Inc.
Stericycle, Inc., Apopka Facility

Facility ID No.: 0950169
Orange County

Title V Air Operation Permit Revision and Renewal

FINAL Permit No.: 0950169-007-AV

Permitting And Compliance Authority:
Orange County Environmental Protection Division
800 Mercy Drive, Suite 4
Orlando, Florida 32808
Telephone: 407-836-1400
Fax: 407-836-1498

Title V Air Operation Permit Revision and Renewal

FINAL Permit Number: 0950169-007-AV

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

FINAL Permit No.: 0950169-007-AV
Stericycle, Inc., Apopka Facility
Facility Id No. 0950169
Title V Air Operation Permit Revision and Renewal

The purpose of this permit is for the revision and renewal of the Title V air operation permit for the above referenced facility. The Stericycle, Inc., Apopka Facility is located in Orange County 254 W. Keene Road, Apopka, Florida. Latitude is: 28°38'20" North; and, Longitude is: 81°31'23" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

Effective Date: April 12, 2012
Renewal Application Due Date: August 29, 2016
Expiration Date: April 11, 2017

Orange County
Environmental Protection Division

Jodi D. Dittell
Environmental Program Supervisor

(2)JK/JD:bh

SECTION I. FACILITY INFORMATION.

Subsection A.

Project Description.

The facility submitted on August 16, 2010 a Title V operation permit application to renew the Title V operation permit expiring March 30, 2011. The applicant applied timely and requested a permit shield during permit processing.

The facility is subject to NSPS 40 CFR Part 60 Subpart Ce, Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators. This NSPS was first promulgated in 1997 and revised in 2001, and as a result FDEP promulgated Rule 62-204.800(9)(d), F.A.C., for HMIWI facilities in Florida. The expiring permit 0950169-006-AV incorporated the requirements of these regulations.

On October 6, 2009, EPA amended Subpart Ce and as a result, FDEP promulgated Rule 62-204.800(9)(g), F.A.C., effective December 30, 2010 to fully implement the amended Subpart Ce standards. Rule 62-204.800(9)(g)10., F.A.C., required the facility to submit a Title V permit revision application by June 1, 2011, to incorporate the amended Subpart Ce standards. The applicant met this rule requirement by submitting a Title V operation permit revision and renewal application on May 27, 2011.

The amended Subpart Ce had an initial compliance date of June 1, 2012, but allowed the facility to request and obtain an extended compliance date. Rule 62-204.800(9)(g)9.d., F.A.C., allowed an extended compliance date no later than June 1, 2014. The facility requested the extended compliance date of June 1, 2014. The facility submitted documentation, including Alternate Schedule Milestones, to justify that request as required by the amended Subpart Ce. The EPD has granted the extension request, and included the Alternate Schedule Milestones in the Compliance Plan in Appendix CP-1. Thus, the facility is subject to Rule 62-204.800(9)(d), F.A.C., prior to the amended Subpart Ce applicability date of June 1, 2014. Beginning June 1, 2014, the facility is subject to Rule 62-204.800(9)(g), F.A.C.

The facility requested one permit incorporating both Rule 62-204.800(9)(d), F.A.C., and Rule 62-204.800(9)(g), F.A.C., in the revision and renewal application submitted May 27, 2011. The EPD complied with this request by issuing the draft permit with Section III Subsection A effective through May 31, 2014, and Section III Subsection B effective beginning June 1, 2014.

The revision and renewal application listed the facility modifications required to meet the amended Subpart Ce emission guidelines, and stated the facility's intention to request a construction permit for the proposed modifications. The facility submitted a construction permit application on September 21, 2011 for those proposed modifications. The facility requested concurrent processing of the construction permit application and the Title V renewal and revision application. The construction permit application resulted in construction permit 0950169-008-AC.

Subsection A.

Facility Description.

Description of facility effective from present to May 31, 2014, for Section III Subsection A.

This facility is a Hospital/Medical/Infectious Waste Incinerator (HMIWI) with an air pollution control system and miscellaneous equipment. The incinerator was constructed in 1991.

The HMIWI is a dual chamber, continuous incinerator. Waste is burned under starved air conditions in the primary chamber, and unburned gases are burned under excess air conditions in the second chamber or afterburner. The afterburner exhausts into a duct with a bypass stack and a quench tower, followed by the air pollution control system. The air pollution control system consists of a dry scrubber followed by a fabric filter. Hydrated lime and activated carbon are injected into the dry scrubber and removed, along with fly ash in the fabric filter (bag house).

SECTION I. FACILITY INFORMATION.

The facility includes a diesel powered fire pump, a diesel powered emergency generator and a silo with dust collector for the hydrated lime.

The air pollution control system will be modified as authorized by construction permit 0950169-008-AC to meet the amended Subpart Ce requirements by the June 1, 2014 compliance date. The authorized facility modifications are:

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 NO_x.
2. Install a wet scrubber with an absorber and a demister at the exit of the bag house, to control SO₂ and HCl.

The facility will also install a new induced draft fan.

Description of facility beginning June 1, 2014, for Section III Subsection B.

This facility is a Hospital/Medical/Infectious Waste Incinerator (HMIWI) with an air pollution control system and miscellaneous equipment. The incinerator was constructed in 1991 and modified in 2013-2014.

The HMIWI is a dual chamber, continuous incinerator. Waste is burned under starved air conditions in the primary chamber, and unburned gases are burned under excess air conditions in the second chamber or afterburner. The afterburner is followed by an SNCR system, in which a reagent (ammonia) is injected to reduce NO_x emissions. The SNCR system is followed by a duct with a bypass stack and a quench tower, which is followed by a dry scrubber, followed by a fabric filter. Hydrated lime and activated carbon are injected into the dry scrubber and removed, along with fly ash in the bag house. A wet scrubber, with an absorber and a demister to control SO₂ and HCl emissions, follows the bag house. An induced draft fan exhausts through a stack.

The facility includes a diesel powered fire pump, a diesel powered emergency generator and a silo with dust collector for the hydrated lime.

Subsection B. Summary of Emissions Units.

The following summary of emission units is effective through May 31, 2014.

This facility configuration is subject to the specific conditions in Section III Subsection A of this permit.

Facility ID Number 0950169	
EU ID	Emission Unit Description
001	<u>Hospital/Medical/Infectious Waste Incinerator</u> 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°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.
002	<u>Diesel RICE</u> Diesel fired RICE at this facility consist of a fire pump engine and an emergency generator. See Appendix ICE for details.

SECTION I. FACILITY INFORMATION.

The facility also includes a lime reagent storage silo equipped with a bag house.

The following summary of emission units is effective beginning June 1, 2014.

This facility configuration is subject to the specific conditions in section B of the permit.

Facility ID Number 0950169	
EU ID	Emission Unit Description
001	<p><u>Hospital/Medical/Infectious Waste Incinerator</u> The continuous incinerator is a Joy Manufacturing Model 2500-TESE constructed in 1991 and modified in 2013-2014. The incinerator has 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°F.</p> <p>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, followed by 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.</p>
002	<p><u>Diesel RICE</u> Diesel fired RICE at this facility consist of a fire pump engine and an emergency generator. See Appendix ICE for details.</p>

The facility also includes a lime reagent storage silo equipped with a bag house.

Subsection C. Applicable Regulations.

Based on the Title V air operation permit revision and renewal application received May 27, 2011 this facility is NOT a major source of hazardous air pollutants (HAP).

This facility is subject to:

1. Rule 62-204.800(9)(d), F.A.C., Hospital/Medical/Infectious Waste Incinerators before the June 1, 2014 compliance date
2. Rule 62-204.800(9)(g), F.A.C., Hospital/Medical/Infectious Waste Incinerators beginning on the June 1, 2014 compliance date
3. Rule 62-296.401(4), F.A.C., Biological Waste Incinerators
4. 40 CFR Part 60 Subpart Ce, Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators, promulgated in 1997 and revised in 2001, before the June 1, 2014 compliance date.
5. 40 CFR Part 60 Subpart Ce, Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators, as amended October 6, 2009, beginning on the June 1, 2014 compliance date.
6. 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, as referenced by Subpart Ce and Rule 62-204.800(9), F.A.C.

Because this facility operates stationary reciprocating internal combustion engines (RICE), it is subject to regulation under 40 CFR Part 63, Subpart ZZZZ, National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines and 40 CFR Part 60, Subpart III,

SECTION I. FACILITY INFORMATION.

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. A summary of applicable regulations is shown in the following table.

Regulation	EU Numbers
40 CFR Part 60 Subpart A, General Provisions	001, 002
40 CFR Part 60 Subpart Ce, Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators	001
40 CFR Part 60 Subpart Ec, Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	001
40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	002
40 CFR Part 63, Subpart A, NESHAP General Provisions	002
40 CFR Part 63, Subpart ZZZZ, National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines	002
40 CFR Part 68, Chemical Accident Prevention Provisions	001, 002
62-4.030	001
62-4.050	001
62-4.070	001
62-4.080	001
62-4.100	001
62-4.110	001
65-4.160	001
62-204.800(9)(d)	001
62-204.800(9)(g)	001
62-210.200	001
62-210.300	001
62-210.360	001
62-210.370	001
62-210.650	001
62-210.700	001
62-210.900	001
62-212.400	001
62-213.205	001
62-213.400	001
62-213.410	001
62-213.412	001

SECTION I. FACILITY INFORMATION.

62-213.415	001
62-213.420	001
62-213.430	001
62-213.440	001
62-213.460	001
62-213.900	001
62-296.100	001
62-296.320	001
62-296.401(4)	001
62-297.100	001
62-297.310	001
62-730	001
Orange County Code of Ordinances, Chapter 15, Article III, Air Quality Control.	001

SECTION II. FACILITY-WIDE CONDITIONS.

The following conditions apply facility-wide to all emission units and activities:

FW.1. Appendices. The permittee shall comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW.2. Not federally Enforceable. 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. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW.3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the EPD. To comply, procedures to minimize pollutant emissions shall include the following:

- a. Tightly cover or close all VOC containers when they are not in use;
- b. Tightly cover, where possible, all open troughs, basins, baths, tanks, etc. when they are not in use;
- c. Maintain all piping, valves, fittings, etc. in good operating condition;
- d. Prevent excessive air turbulence across exposed VOCs; and
- e. Immediately confine and clean up VOC spills and make sure certain wastes are placed in closed containers for reuse, recycling or proper disposal.

[Rule 62-296.320(1)(a), F.A.C.]

FW.4. 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. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]

FW.5. 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 to prevent emissions of unconfined particulate matter at this facility include:

- a. Paving and maintenance of roads, parking areas and yards.
- b. Application of asphalt, water, oil, chemicals or other dust suppressants to paved and unpaved roads, yards, open stock piles and similar activities.
- c. 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.
- d. Landscaping or planting of vegetation.
- e. Use of hoods, fans, filters, enclosures and similar equipment to contain, capture and/or vent particulate matter.
- f. Enclosure or covering of conveyor systems and loading and offloading areas.
- g. Daily inspections of parking areas, roadways, ash pit, quench system, roll-off storage area, fly ash processing area and hydrated lime silo to ensure that these areas are free of unconfined particulate matter.

[Rule 62-296.320(4)(c), F.A.C.; Construction permit 0950169-008-AC]

SECTION II. FACILITY-WIDE CONDITIONS.

Annual Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements for additional details.

FW.6. Annual Operating Report. The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rule 62-210.370(3), F.A.C.]

FW.7. Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: <http://www.dep.state.fl.us/air/emission/tvfee.htm>. [Rule 62-213.205, F.A.C.]

FW.8. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V permit was effective. [Rules 62-213.440(3)(a)2. & 3. and (3)(b), F.A.C.]

FW9. Prevention of Accidental Releases (Section 112(r) of CAA). If and when the facility becomes subject to 112(r), the permittee shall:

- a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
- b. Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68]

FW10. Not Federally Enforceable. Orange County Ordinances: 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.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emission Unit 001

Subsection A. Brief EU Description and Specific Conditions Effective Through May 31, 2014

The specific conditions in this subsection apply to the following emissions unit effective through May 31, 2014.

EU No.	Brief Description
001	<p><u>Hospital/Medical/Infectious Waste Incinerator</u></p> <p>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°F.</p> <p>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.</p>

COMPLIANCE TIMES

A.1. Compliance Times. The permittee shall comply with the specific conditions in Section III Subsection A of this permit through May 31, 2014. Beginning June 1, 2014, the permittee shall comply with the specific conditions in Section III Subsection B of this permit. [Rules 62-204.800(9)(d) and 62-204.800(9)(g), F.A.C., 40 CFR Part 60 Subpart Ce section 60.39e; Title V operation permit revision and renewal application received May 27, 2011]

A.2. Alternate Schedule Milestones.

- a. The permittee shall construct and make operational an SNCR system for reducing NOx emissions and a wet scrubber for reducing SO₂ and HCl emissions from the HMIWI as authorized by construction permit 0950169-008-AC.
- b. The permittee shall expeditiously comply with the Alternate Schedule Milestones in Appendix CP-1 when performing the facility modifications authorized by construction permit 0950169-008-AC.
- c. The permittee shall notify EPD in writing within 15 days after the date specified for completion of each milestone, to include the achievement of compliance, of progress achieved, requirements met, requirements not met, corrective measures adopted and an explanation of any measures not met by the completion date for the milestone or for compliance. All reports shall be accompanied by a certification, signed by a responsible official, in accordance with subsection 62-213.420(4), F.A.C.

[Rules 62-4.070(3), 62-204.800(9)(g)9.d., and 62-213.440, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.39e(c); Title V operation permit revision and renewal application received May 27, 2011; Construction permit 0950169-008-AC]

OPERATING RESTRICTIONS

A.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.; Title V operation permit revision and renewal application received May 27, 2011]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emission Unit 001

- A.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 section 60.51c. [Title V operation permit revision and renewal application received May 27, 2011]
- A.5. Methods of Operation – Fuels Allowed.** The Hospital/Medical/Infectious Waste Incinerator is allowed to burn the following:
- Items and materials that fit within the definition of hospital, medical and infectious waste (HMIW) contained in 40 CFR 60.51c;
 - International Garbage (USDA/APHIS);
 - Confidential documents and contraband;
 - Expired medical products;
 - Non-hazardous trace chemotherapeutic waste materials; and;
 - Non-hazardous pharmaceuticals
 - 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]
- A.6. Methods of Operation – Fuels Prohibited.** Subject to the limitations contained in this permit, the facility **shall not burn:**
- Those materials that are prohibited by state or federal law;
 - Those materials that are prohibited by this permit;
 - Lead acid batteries;
 - 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;
 - Nuclear waste;
 - Sewage sludge;
 - Explosives;
 - Human corpses, remains, and anatomical parts that are intended for interment.
- [Rule 62-4.160(2), F.A.C., and 40 CFR 60 Subpart Ec section 60.51c]
- A.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)(c)(4), F.A.C.]
- A.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 Department 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)(c)(5), F.A.C.]

EMISSIONS STANDARDS

- A.9. Particulate Matter Emissions.** Particulate matter emissions shall not exceed 34 mg/dscm (0.015 gr/dscf) corrected to 7 percent oxygen (dry basis). [Rule 62-296.800(9)(d)3.b, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(1)]
- A.10. Carbon Monoxide Emissions.** Carbon monoxide emissions shall not exceed 40 ppmv corrected to 7 percent oxygen (dry basis). [Rule 62-296.800(9)(d)3.b, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(1)]
- A.11. Dioxin/Furans Emissions.** Dioxin/furans emissions shall not exceed 125 nanograms per dry standard cubic meter total dioxins/furans (55 grains per billion dry standard cubic feet), or 2.3

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emission Unit 001

nanograms per dry standard cubic meter (1.0 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)(d)3.b, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(1)]

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]

- A.12. Hydrogen Chloride Emissions.** Hydrogen chloride emissions shall not exceed 100 ppmv corrected to 7 percent oxygen (dry basis), or 93% reduction. [Rule 62-296.800(9)(d)3.b, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(1)]
- A.13. Sulfur Dioxide Emissions.** Sulfur dioxide emissions shall not exceed 55 ppmv corrected to 7 percent oxygen (dry basis). [Rule 62-296.800(9)(d)3.b, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(1)]
- A.14. Nitrogen Oxides Emissions.** Nitrogen oxides emissions shall not exceed 250 ppmv corrected to 7 percent oxygen (dry basis). [Rule 62-296.800(9)(d)3.b, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(1)]
- A.15. Lead Emissions.** Lead emissions shall not exceed 1.2 mg/dscm (0.52 grains per thousand dry standard cubic feet) corrected to 7 percent oxygen (dry basis), or 70% reduction. [Rule 62-296.800(9)(d)3.b, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(1)]
- A.16. Cadmium Emissions.** Cadmium emissions shall not exceed 0.16 mg/dscm (0.07 grains per thousand dry standard cubic feet) corrected to 7 percent oxygen (dry basis), or 65% reduction. [Rule 62-296.800(9)(d)3.b, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(1)]

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A.17. Mercury Emissions. Mercury emissions shall not exceed 0.55 mg/dscm (0.24 grains per thousand dry standard cubic feet) corrected to 7 percent oxygen (dry basis), or 85% reduction. [Rule 62-296.800(9)(d)3.b, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(1)]

A.18. Visible Emissions. Visible emissions shall not exceed 10 percent opacity (6-minute block average). [Rule 62-296.800(9)(d)3.a, F.A.C.; 40 CFR Part 60 Subpart Ce section 60.33e(a)(1); 40 CFR Part 60 Subpart Ec section 60.52c(b)(1)]

OPERATOR TRAINING AND QUALIFICATION REQUIREMENTS

A.19. 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 condition.
- 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 condition; 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;

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- (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 condition.
 - (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 condition.
- h. The permittee 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 permittee 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 prior to assumption of responsibilities affecting HMIWI operation.
 - (2) Subsequent reviews of the information listed in paragraph h. of this condition shall be conducted annually.
- j. The information listed in paragraph h. of this condition 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]

A.20. 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. [Rule 62-296.401(4)(c), F.A.C.]

A.21. 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. [Rule 62-296.401(4)(c), F.A.C.]

WASTE MANAGEMENT PLAN

A.22. 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,

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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 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 section. [Rule 62-204.800(9)(g)5., F.A.C. and 40 CFR Part 60 Subpart Ec section 60.55c]

TESTING REQUIREMENTS

A.23. 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 TR (Facility-wide Testing Requirements) of this permit. [Rule 62-297.310(7)(a)9, F.A.C.]

A.24. 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]

A.25. 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]

A.26. 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

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EPA Method	Description of Method and Comments
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 Dibenzop-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 A.11.
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 is 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]

- A.27. 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]
- A.28. 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 **A.26.**, 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)(d)7., F.A.C.; 40 CFR Part 60 Subpart Ec section 60.56c]
- A.29. PM and HCl Testing.** The permittee shall conduct annual compliance tests for PM and HCl. [Rule 62-296.401(4)(e)2., F.A.C.]
- A.30. Operating Parameters for Dry Scrubber and Fabric Filter.** The permittee shall 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, the permittee shall 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

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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.

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

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

A.31. 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 HCl sorbent flow rate (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)(d)7., F.A.C.; 40 CFR Part 60 Subpart Ec section 60.56c(e)]

A.32. 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 **A.31.**
- 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)(d)7., F.A.C.; CFR Part 60 Subpart Ec sections 60.56c(i) and (k)]

MONITORING REQUIREMENTS

A.33. Standards for Hospital/Medical/Infectious Waste Incinerators Monitoring Requirements.

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- 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 **A.30.**, Operating Parameters for Dry Scrubber and Fabric Filter, such that these devices (or methods) measure and record values for these operating parameters at the frequencies indicated in condition **A.30.** at all times.
- b. 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.
- c. 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.
- d. 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.
- e. 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 paragraphs e.(1) and e.(2) of this section.

[Rule 62-204.800(9)(d)8., F.A.C.; 40 CFR Part 60 Subpart Ec section 60.57c]

A.34. 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

A.35. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix TR (Facility-wide Testing Requirements) of this permit. [Rule 62-297.310(8), F.A.C.]

A.36. Recordkeeping Log. Pursuant to Rules 62-4.070(3) and 62-204.800(9)(d), 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;

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- 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. Secondary chamber temperatures recorded during each minute of operation;
 - h. Records indicating use of the bypass stack, including dates, times, and durations.
 - i. 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)(d), F.A.C., and 40 CFR Part 60 Subpart Ec section 60.58c(b)]

A.37. 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 a. through i. of condition **A.36.**, 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 paragraph a. through i. of condition **A.36.**, 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)(d), F.A.C., and 40 CFR Part 60 Subpart Ec section 60.58c(b)]

A.38. 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 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 **A.22.**, Waste Management Plan.

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

A.39. 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

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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 dry scrubber and fabric filter.
- 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 **A.37.**, Recordkeeping Requirements, a., b. or c. for the calendar year being reported.
- e. Any information recorded under specific condition **A.37.**, 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 **A.37.**, 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)(d), F.A.C., and 40 CFR Part 60 Subpart Ec section 60.58c(d)]

A.40. Semiannual Reports. The permittee shall submit semiannual reports containing any information recorded under specific condition **A.37.**, 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)(d), F.A.C., and 40 CFR Part 60 Subpart Ec section 60.58c(e)]

A.41. 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)]

A.42. 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)]

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RELATED PROVISIONS

- A.43. 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.

INSPECTION GUIDELINES

- A.44. Standards for Hospital/Medical/Infectious Waste Incinerators Inspection Guidelines.** The permittee shall comply with the following by June 1, 2012.
- 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.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emission Unit 001

- 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.

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

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emission Unit 001

Subsection B. Brief EU Description and Specific Conditions Effective Beginning June 1, 2014

The specific conditions in this subsection apply to the following emissions unit effective beginning June 1, 2014.

Facility ID Number 0950169	
EU ID	Emission Unit Description
001	<p><u>Hospital/Medical/Infectious Waste Incinerator</u></p> <p>The continuous incinerator is a Joy Manufacturing Model 2500-TESI constructed in 1991 and modified in 2013-2014. The incinerator has 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°F.</p> <p>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.</p>

COMPLIANCE TIMES

B.1. Compliance Times. The permittee shall comply with the specific conditions in Section III Subsection A of this permit through May 31, 2014. Beginning June 1, 2014, the permittee shall comply with the specific conditions in Section III Subsection B of this permit. [Rules 62-204.800(9)(d) and 62-204.800(9)(g), F.A.C., 40 CFR Part 60 Subpart Ce section 60.39e, Title V operation permit revision and renewal application received May 27, 2011]

OPERATING RESTRICTIONS

B.2. 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.; Title V operation permit revision and renewal application received May 27, 2011; Construction permit 0950169-008-AC]

B.3. 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 section 60.51c. [Title V operation permit revision and renewal application received May 27, 2011; Construction permit 0950169-008-AC]

B.4. 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]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emission Unit 001

- B.5. 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 Part 60 Subpart Ec section 60.51c]
- B.6. 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)(c)(4), F.A.C.]
- B.7. 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 Department or the waste of such quantity to be exempt in accordance with Chapter 62-730, F.A.C. [Rule 62-296.401(4)(c)(5), F.A.C.]

EMISSIONS STANDARDS

- B.8. 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); Construction permit 0950169-008-AC]
- B.9. 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); Construction permit 0950169-008-AC]
- B.10. 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); Construction permit 0950169-008-AC]

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

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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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]

- B.11. 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); Construction permit 0950169-008-AC]
- B.12. 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); Construction permit 0950169-008-AC]
- B.13. 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); Construction permit 0950169-008-AC]
- B.14. 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); Construction permit 0950169-008-AC]
- B.15. 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); Construction permit 0950169-008-AC]
- B.16. 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); Construction permit 0950169-008-AC]
- B.17. 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); Construction permit 0950169-008-AC]

OPERATOR TRAINING AND QUALIFICATION REQUIREMENTS

- B.18. 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 condition.
 - 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:

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- 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;

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- (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]

B.19. 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. [Rule 62-296.401(4)(c), F.A.C.]

B.20. 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. [Rule 62-296.401(4)(c), F.A.C.]

WASTE MANAGEMENT PLAN

B.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]

INSPECTION GUIDELINES

B.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;

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- (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

- B.23. 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.]
- B.24. 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 TR (Facility-wide Testing Requirements) of this permit. [Rule 62-297.310(7)(a)9, F.A.C.]
- B.25. 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

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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]

B.26. 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]

B.27. 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 B.10.
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 is 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]

B.28. 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]

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- B.29. 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 **B.27**, 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]
- B.30. PM, HCl and Metals Testing.** The permittee shall conduct annual compliance tests for PM and HCl. 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 **B.27**., 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.]
- B.31. 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

¹This 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)]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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B.32. 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)]

B.33. 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 **B.32**.
- 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)]

B.34. 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, 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

B.35. 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 **B.31**, 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 **B.31** 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 **B.34**, Operating Parameters for SNCR Systems, at all times. Operating parameter values shall be measured and recorded at the following minimum frequencies:

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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- (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 paragraphs e.(1) and e.(2) of this section.

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

- B.36. 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)]

- B.37. 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.]

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Subsection B. Emission Unit 001

RECORDS AND REPORTS

- B.38. Test Reports:** The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix TR (Facility-wide Testing Requirements) of this permit. [Rule 62-297.310(8), F.A.C.]
- B.39. 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:
- Calendar date for which records are being tabulated.
 - HMIWI charge dates, times, and weights and hourly charge rates;
 - Fabric filter inlet temperatures during each minute of operation;
 - Amount and type of dioxin/furan sorbent used during each hour of operation;
 - Amount and type of Hg sorbent used during each hour of operation;
 - Amount and type of HCl sorbent used during each hour of operation;
 - Amount and type of NO_x SNCR reagent (ammonia) used during each hour of operation;
 - Secondary chamber temperatures recorded during each minute of operation;
 - Liquor flow rate to the wet scrubber inlet during each minute of operation;
 - Pressure drop across the wet scrubber system during each minute of operation, unless US EPA approves the alternative monitoring procedure to be requested by the permittee;
 - pH at the inlet to the wet scrubber during each minute of operation;
 - Records indicating use of the bypass stack, including dates, times, and durations.
 - 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)]
- B.40. Recordkeeping Requirements.** The permittee shall also maintain the following records onsite in either paper copy or computer-readable format:
- The permittee shall identify the calendar days for which data on emission rates or operating parameters specified under conditions a. through n. of condition **B.39.**, 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.
 - The permittee shall identify calendar days, times and durations of malfunctions, a description of the malfunction and the corrective action taken.
 - The permittee shall identify calendar days for which data on emission rates or operating parameters specified under paragraph a. through n. of condition **B.39.**, Recordkeeping Log, exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances, and a description of corrective actions taken.
 - 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.
 - 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;
 - 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;
 - 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;

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emission Unit 001

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)]

B.41. 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 **B.21**, Waste Management Plan.

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

B.42. 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 **B.40.**, Recordkeeping Requirements, a., b. or c. for the calendar year being reported.

e. Any information recorded under specific condition **B.40.**, 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 **B.40.**, 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)]

B.43. Semiannual Reports. The permittee shall submit semiannual reports containing any information recorded under specific condition **B.40.**, 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)]

B.44. 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

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emission Unit 001

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)]

- B.45. 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

- B.46. 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.
- 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.
 - 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.
 - 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.

SECTION IV. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.

Appendix I, List of Insignificant Emissions Units and/or Activities.

Appendix ICE, Requirements for Internal Combustion Engines.

Appendix CP-1, Compliance Plan

Appendix NSPS Subpart Ce – Emission Guidelines and Compliance Times for
Hospital/Medical/Infectious Waste Incinerators

Appendix NSPS Subpart Ec – Standards of Performance for Hospital/Medical/Infectious Waste
Incinerators for Which Construction is Commenced After June 20, 1996

Appendix NSPS Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal
Combustion Engines

Appendix NESHAP, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for
Stationary Reciprocating Internal Combustion Engines.

Appendix RR, Facility-wide Reporting Requirements.

Appendix TR, Facility-wide Testing Requirements.

Appendix TV, Title V General Conditions.

Table H, Permit History.

Statement of Basis.

APPENDIX A

ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS

Abbreviations and Acronyms:

° F: degrees Fahrenheit

acfm: actual cubic feet per minute

AOR: Annual Operating Report

ARMS: Air Resource Management System
(Department's database)

BACT: best available control technology

Btu: British thermal units

CAA: Clean Air Act

CAAA: Clean Air Act Amendments of 1990

CAM: compliance assurance monitoring

CEMS: continuous emissions monitoring system

Cd: cadmium

cfm: cubic feet per minute

CFR: Code of Federal Regulations

CO: carbon monoxide

COMS: continuous opacity monitoring system

DARM: Division of Air Resources Management

DCA: Department of Community Affairs

DEP: Department of Environmental Protection

Department: Department of Environmental
Protection

dscfm: dry standard cubic feet per minute

EPA: Environmental Protection Agency

ESP: electrostatic precipitator (control system for
reducing particulate matter)

EU: emissions unit

F.A.C.: Florida Administrative Code

F.D.: forced draft

F.S.: Florida Statutes

FGR: flue gas recirculation

Fl: fluoride

ft²: square feet

ft³: cubic feet

gpm: gallons per minute

gr: grains

HAP: hazardous air pollutant

Hg: mercury

HMIWI: hospital/medical/infectious waste
incinerator

I.D.: induced draft

ID: identification

ISO: International Standards Organization (refers to
those conditions at 288 Kelvin, 60% relative
humidity and 101.3 kilopascals pressure.)

kPa: kilopascals

LAT: Latitude

lb: pound

lbs/hr: pounds per hour

LONG: Longitude

MACT: maximum achievable control technology

mm: millimeter

MMBtu: million British thermal units

MSDS: material safety data sheets

MW: megawatt

NESHAP: National Emissions Standards for
Hazardous Air Pollutants

NO_x: nitrogen oxides

NSPS: New Source Performance Standards

O&M: operation and maintenance

O₂: oxygen

ORIS: Office of Regulatory Information Systems

OS: Organic Solvent

Pb: lead

PM: particulate matter

PM₁₀: particulate matter with a mean aerodynamic
diameter of 10 microns or less

PSD: prevention of significant deterioration

psi: pounds per square inch

PTE: potential to emit

RACT: reasonably available control technology

RATA: relative accuracy test audit

RICE: Reciprocating internal combustion engines

RMP: Risk Management Plan

RO: Responsible Official

APPENDIX A

ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS

SAM: sulfuric acid mist	TPH: tons per hour
scf: standard cubic feet	TPY: tons per year
scfm: standard cubic feet per minute	UTM: Universal Transverse Mercator coordinate system
SIC: standard industrial classification code	VE: visible emissions
SNCR: selective non-catalytic reduction (control system used for reducing emissions of nitrogen oxides)	VOC: volatile organic compounds
SOA: Specific Operating Agreement	x: By or times
SO₂: sulfur dioxide	

Citations:

The following examples illustrate the methods used in this permit to abbreviate and cite the references of rules, regulations, guidance memorandums, permit numbers and ID numbers.

Code of Federal Regulations:

Example: [40 CFR 60.334]

Where:	40	refers to	Title 40
	CFR	refers to	Code of Federal Regulations
	60	refers to	Part 60
	60.334	refers to	Regulation 60.334

Florida Administrative Code (F.A.C.) Rules:

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

Where:	62	refers to	Title 62
	62-213	refers to	Chapter 62-213
	62-213.205	refers to	Rule 62-213.205, F.A.C.

Identification Numbers:

Facility Identification (ID) Number:

Example: Facility ID No.: 1050221

Where:

105 =	3-digit number code identifying the facility is located in Polk County
0221 =	4-digit number assigned by state database.

Permit Numbers:

APPENDIX A

ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS

Example: 1050221-002-AV, or
1050221-001-AC

Where:

AC = Air Construction Permit
AV = Air Operation Permit (Title V Source)
105 = 3-digit number code identifying the facility is located in Polk County
0221= 4-digit number assigned by permit tracking database
001 or 002= 3-digit sequential project number assigned by permit tracking database

Example: PSD-FL-185
PA95-01
AC53-208321

Where:

PSD = Prevention of Significant Deterioration Permit
PA = Power Plant Siting Act Permit
AC53 = old Air Construction Permit numbering identifying the facility is located in Polk County

APPENDIX I

LIST OF INSIGNIFICANT EMISSIONS UNITS AND/OR ACTIVITIES

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, or that meet the criteria specified in Rule 62-210.300(3)(b)1., F.A.C., Generic Emissions Unit Exemption, are exempt from the permitting requirements of Chapters 62-210, 62-212 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

Brief Description of Emissions Units and/or Activities

1. Hydrated lime storage silo with dust collector.

APPENDIX ICE

REQUIREMENTS FOR INTERNAL COMBUSTION ENGINES

This Title V facility contains two stationary internal combustion engines that have been exempted from the requirement to obtain an air construction permit because they qualify for one of the categorical exemptions listed in Rule 62-210.300(3)(a), Florida Administrative Code (F.A.C.). However, they are included in this permit as a regulated emissions unit because they are subject to the following federal rules:

- 40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
- 40 CFR Part 63, Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

The below listed engines are subject to the specified federal rules.

<u>E.U. ID No.</u>	<u>Brief Description of Engine</u>	<u>Year Built</u>	<u>HP Rating</u>	<u>Cylinder Displacement</u>	<u>Rule Applicability</u>
-002	Diesel fire pump engine	1989	244	Less than 10 L	<i>ZZZZ</i>
-002	Diesel emergency generator	2010	755	Less than 10 L	IIII

APPENDIX CP-1

COMPLIANCE PLAN, ALTERNATE SCHEDULE MILESTONES

COMPLIANCE PLAN

HMIWIs are subject to NSPS 40 CFR Part 60 Subpart Ce and to Rule 62-204.800(9)(g), F.A.C. NSPS 40 CFR Part 60 Subpart Ce amended October 6, 2009 set a compliance date of June 1, 2012, but allowed facilities to receive an extended compliance date in section 60.39e. That section allows 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 to allow compliance on or before October 6, 2014. Rule 62-204.800(9)(g)9.d., F.A.C., requires that the alternate schedule provide for compliance with all the requirements of Rule 62-204.800(9)(g), F.A.C., no later than June 1, 2014.

The suggested measurable and enforceable activities listed in the NSPS are given in Table CP-1 below as Alternate Schedule Milestones. The completion dates were supplied by the permittee in the Title V operation permit revision and renewal application received May 27, 2011. That application also supplies the documentation of the analyses undertaken to support the need for an extension, and documentation of measurable and enforceable incremental steps of progress to be taken towards compliance with the emission guidelines.

The EPD has reviewed and evaluated the extension request and has granted the extension. The EPD requires expeditious compliance with the emissions guidelines by June 1, 2014 in the specific conditions of this permit. The EPD also requires the permittee to report milestone completion dates in writing to EPD within 15 days of milestone completion.

Table CP-1. Alternate Schedule Milestones that provide measurable and enforceable incremental steps of progress to be taken towards compliance with the emission guidelines.

Alternate Schedule Milestone	Completion Date
1. Date for obtaining services of an architectural and engineering firm regarding the air pollution control devices	July 1, 2012
2. Date for obtaining design drawings of the air pollution control devices	September 30, 2012
3. Date for ordering the air pollution control devices	November 30, 2012
4. Date for obtaining the major components of the air pollution control devices	May 31, 2013
5. Date for initiation of site preparation for installation of the air pollution control devices	June 1, 2013
6. Date for initiation of installation of the air pollution control devices	June 1, 2013
7. Date for the initial startup of the air pollution control devices	September 1, 2013
8. Date for initial compliance tests of the air pollution control devices	March 1, 2014
9. Final alternate schedule completion date	June 1, 2014

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

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- (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.

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(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;

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- (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;

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- (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).

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(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:

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(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]

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§ 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:

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(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]

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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 ⁹ dscf)) or ng/dscm TEQ (gr/10 ⁹ dscf)	125 (55) or 2.3 (1.0)	125 (55) or 2.3 (1.0)	125 (55) or 2.3 (1.0)	3-run average (4-hour minimum sample time per run)	EPA Reference Method 23 of appendix A-7 of 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 ³ dscf)) or percent reduction	1.2 (0.52) or 70%	1.2 (0.52) or 70%	1.2 (0.52) or 70%	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of part 60.

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Cadmium	mg/dscm (gr/10 ³ dscf) or percent reduction	0.16 (0.07) or 65%	0.16 (0.07) or 65%	0.16 (0.07) or 65%	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of part 60.
Mercury	mg/dscm (gr/10 ³ dscf) or percent reduction	0.55 (0.24) or 85%	0.55 (0.24) or 85%	0.55 (0.24) or 85%	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of part 60.

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

²Does 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			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))	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 ⁹ dscf)) or ng/dscm TEQ (gr/10 ⁹ dscf)	16 (7.0) or 0.013 (0.0057)	0.85 (0.37) or 0.020 (0.0087)	9.3 (4.1) or 0.054 (0.024)	3-run average (4-hour minimum sample time per run)	EPA Reference Method 23 of appendix A-7 of 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	EPA Reference Method 6 or 6C of appendix A- 4 of part 60.

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

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

²Does 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 time¹	Method for demonstrating compliance²
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 ⁹ dscf) or ng/dscm TEQ (gr/10 ⁹ dscf)	800 (350) or 15 (6.6)	3-run average (4-hour minimum sample time per run)	EPA Reference Method 23 of appendix A-7 of part 60.

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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 ³ dscf)	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 ³ dscf)	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 ³ dscf)	7.5 (3.3)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of part 60.

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

²Does 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 time¹	Method for demonstrating compliance²
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 ⁹ dscf) or ng/dscm TEQ (gr/10 ⁹ dscf)	240 (100) or 5.1 (2.2)	3-run average (4-hour minimum sample time per run)	EPA Reference Method 23 of appendix A-7 of part 60.

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EMISSION GUIDELINES AND COMPLIANCE TIMES FOR HMIWI

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 ³ dscf)	0.50 (0.22)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of part 60.
Cadmium	mg/dscm (gr/10 ³ dscf)	0.11 (0.048)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of part 60.
Mercury	mg/dscm (gr/10 ³ dscf)	0.0051 (0.0022)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of part 60.

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

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

[74 FR 51407, Oct. 6, 2009]

APPENDIX NSPS, SUBPART EC
EMISSION STANDARDS FOR HMIWI

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 radioactivewaste 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.

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- (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.

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(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]

APPENDIX NSPS, SUBPART EC
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§ 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.

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Fabric filter or baghouse means an add-on air pollution control system that removes particulate matter (PM) and nonvolatile 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

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(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, ft³

15,000=primary chamber heat release rate factor, Btu/ft³/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, ft³

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4.5=waste density, lb/ft³

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; 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 include 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.

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(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.

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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.

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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 nonvolatile 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.

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(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;

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(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;

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(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.

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§ 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.

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- (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_x emissions.
- (8) EPA Reference Method 6 or 6C of appendix A-4 of this part shall be used to measure SO_2 emissions.
- (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

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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

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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.

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(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.

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(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.

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(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.

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(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_x emissions 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]

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§ 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.

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(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.”

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(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:

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- (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_x reagent 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.

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- (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

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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.

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(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.

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					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.

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

²Does 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	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.

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	standard cubic meter TEQ (grains per billion dry standard cubic feet)					
Hydrogen chloride	Parts per million by volume	15	7.7	5.1	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	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.

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

²Does 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

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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

Operating parameters to be monitored	Minimum frequency		Control system		
	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	✓		✓

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Minimum HCl 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	✓	✓	✓

APPENDIX NSPS, SUBPART III
STANDARDS FOR CI RICE

40 CFR Part 60, Subpart III - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Source: 71 FR 39172, July 11, 2006, unless otherwise noted

Federal Revision Date: July 11, 2006

Rule Effective Date: January 8, 2007

Standardized Conditions Revision Date: August 4, 2009.

What This Subpart Covers

§ 60.4200 Am I subject to this subpart?

- (a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (3) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.
- (1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:
- (i) 2007 or later, for engines that are not fire pump engines,
 - (ii) The model year listed in table 3 to this subpart or later model year, for fire pump engines.
- (2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005 where the stationary CI ICE are:
- (i) Manufactured after April 1, 2006 and are not fire pump engines, or
 - (ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.
- (3) Owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005.
- (b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.
- (c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.
- (d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

EMISSION STANDARDS FOR MANUFACTURERS

§ 60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

- (a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR

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1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

- (b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.
- (c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.
- (d) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

§ 60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

- (a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.
 - (1) For engines with a maximum engine power less than 37 KW (50 HP):
 - (i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and
 - (ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.
 - (2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.
- (b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.
 - (1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.
 - (2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.
- (c) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines to the certification emission standards for new

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marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

- (d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

§ 60.4203 How long must my engines meet the emission standards if I am a stationary CI internal combustion engine manufacturer?

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§60.4201 and 60.4202 during the useful life of the engines.

EMISSION STANDARDS FOR OWNERS AND OPERATORS

§ 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

- (a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the emission standards in 40 CFR 94.8(a)(1).
- (b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable.
- (c) Owners and operators of non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (c)(1) and (2) of this section.
- (1) Reduce nitrogen oxides (NO_x) emissions by 90 percent or more, or limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (g/KW-hr) (1.2 grams per HP-hour (g/HP-hr)).
- (2) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

- (a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).
- (b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.
- (c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.
- (d) Owners and operators of emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (d)(1) and (2) of this section.

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- (1) Reduce NO_x emissions by 90 percent or more, or limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (1.2 grams per HP-hour).
- (2) Reduce PM emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

FUEL REQUIREMENTS FOR OWNERS AND OPERATORS

§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

- (a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).
- (b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.
- (c) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of paragraphs (a) and (b) of this section beyond the dates required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.
- (d) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the Federal Aid Highway System may petition the Administrator for approval to use any fuels mixed with used lubricating oil that do not meet the fuel requirements of paragraphs (a) and (b) of this section. Owners and operators must demonstrate in their petition to the Administrator that there is no other place to use the lubricating oil. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.
- (e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.

OTHER REQUIREMENTS FOR OWNERS AND OPERATORS

§ 60.4208 What is the deadline for importing or installing stationary CI ICE produced in the previous model year?

- (a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.
- (b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.
- (c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

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- (d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.
- (e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.
- (f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.
- (g) In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (f) of this section after the dates specified in paragraphs (a) through (f) of this section.
- (h) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

§ 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

- (a) If you are an owner or operator of an emergency stationary CI internal combustion engine, you must install a non-resettable hour meter prior to startup of the engine.
- (b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

COMPLIANCE REQUIREMENTS

§ 60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?

- (a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in §60.4201(a) through (c) and §60.4202(a), (b) and (d) using the certification procedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.
- (b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §60.4201(d) and §60.4202(c) using the certification procedures required in 40 CFR part 94 subpart C, and must test their engines as specified in 40 CFR part 94.

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- (c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 40 CFR 1039.125, 40 CFR 1039.130, 40 CFR 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89 or 40 CFR part 94 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.
- (1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.
- (2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:
- (i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.
- (ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.
- (iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.
- (3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.
- (i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in part 89, 94 or 1039, as appropriate.
- (ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in part 89, 94 or 1039, as appropriate, but the words “stationary” must be included instead of “nonroad” or “marine” on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.
- (iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.
- (d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under parts 89, 94, or 1039 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may

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include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

- (e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words “and stationary” after the word “nonroad” or “marine,” as appropriate, to the label.
- (f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in §60.4202 but does not meet all the emission standards for non-emergency engines in §60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.
- (g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as “Fire Pump Applications Only”.
- (h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §§60.4201 or 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.
- (i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

- (a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.
- (b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.
 - (1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

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- (2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.
 - (3) Keeping records of engine manufacturer data indicating compliance with the standards.
 - (4) Keeping records of control device vendor data indicating compliance with the standards.
 - (5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.
- (c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's specifications.
- (d) If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.
- (1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213.
 - (2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.
 - (i) Identification of the specific parameters you propose to monitor continuously;
 - (ii) A discussion of the relationship between these parameters and NO_x and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NO_x and PM emissions;
 - (iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;
 - (iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
 - (v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.
 - (3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in §60.4213.
- (e) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records

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indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. For owners and operators of emergency engines meeting standards under §60.4205 but not §60.4204, any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited.

TESTING REQUIREMENTS FOR OWNERS AND OPERATORS

§ 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (d) of this section.

- (a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F.
- (b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.
- (c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \quad (\text{Eq. 1})$$

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.

- (d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate.

§ 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (d) of this section.

- (a) Each performance test must be conducted according to the requirements in §60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

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- (b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c).
- (c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must last at least 1 hour.
- (d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 2})$$

Where:

C_i = concentration of NO_x or PM at the control device inlet,

C_o = concentration of NO_x or PM at the control device outlet, and

R = percent reduction of NO_x or PM emissions.

(2) You must normalize the NO_x or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O₂) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO₂) using the procedures described in paragraph (d)(3) of this section.

$$C_{adj} = C_d \frac{5.9}{20.9 - \% O_2} \quad (\text{Eq. 3})$$

Where:

C_{adj} = Calculated NO_x or PM concentration adjusted to 15 percent O₂.

C_d = Measured concentration of NO_x or PM, uncorrected.

5.9 = 20.9 percent O₂–15 percent O₂, the defined O₂ correction value, percent.

%O₂ = Measured O₂ concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent O₂ and CO₂ concentration is measured in lieu of O₂ concentration measurement, a CO₂ correction factor is needed. Calculate the CO₂ correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

(i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_g} \quad (\text{Eq. 4})$$

Where:

F_o = Fuel factor based on the ratio of O₂ volume to the ultimate CO₂ volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O₂, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/10⁶ Btu).

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F_c = Ratio of the volume of CO₂ produced to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/10⁶ Btu).

(ii) Calculate the CO₂ correction factor for correcting measurement data to 15 percent O₂, as follows:

$$X_{CO_2} = \frac{5.9}{F_c} \quad (\text{Eq. 5})$$

Where:

X_{CO_2} = CO₂ correction factor, percent.

5.9 = 20.9 percent O₂–15 percent O₂, the defined O₂ correction value, percent.

(iii) Calculate the NO_x and PM gas concentrations adjusted to 15 percent O₂ using CO₂ as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 6})$$

Where:

C_{adj} = Calculated NO_x or PM concentration adjusted to 15 percent O₂.

C_d = Measured concentration of NO_x or PM, uncorrected.

%CO₂ = Measured CO₂ concentration, dry basis, percent.

(e) To determine compliance with the NO_x mass per unit output emission limitation, convert the concentration of NO_x in the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{\text{KW-hour}} \quad (\text{Eq. 7})$$

Where:

ER = Emission rate in grams per KW-hour.

C_d = Measured NO_x concentration in ppm.

1.912×10^{-3} = Conversion constant for ppm NO_x to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{\text{KW-hour}} \quad (\text{Eq. 8})$$

Where:

ER = Emission rate in grams per KW-hour.

C_{adj} = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

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KW-hour = Energy output of the engine, in KW.

NOTIFICATION, REPORTS, AND RECORDS FOR OWNERS AND OPERATORS

§ 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

- (a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.
- (1) Submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.
- (i) Name and address of the owner or operator;
 - (ii) The address of the affected source;
 - (iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
 - (iv) Emission control equipment; and
 - (v) Fuel used.
- (2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.
- (i) All notifications submitted to comply with this subpart and all documentation supporting any notification.
 - (ii) Maintenance conducted on the engine.
 - (iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.
 - (iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.
- (b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.
- (c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

SPECIAL REQUIREMENTS

§ 60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

- (a) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §60.4205. Non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder, must meet the applicable emission standards in §60.4204(c).

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- (b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in §60.4207.

§ 60.4216 What requirements must I meet for engines used in Alaska?

- (a) Prior to December 1, 2010, owners and operators of stationary CI engines located in areas of Alaska not accessible by the Federal Aid Highway System should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.
- (b) The Governor of Alaska may submit for EPA approval, by no later than January 11, 2008, an alternative plan for implementing the requirements of 40 CFR part 60, subpart III, for public-sector electrical utilities located in rural areas of Alaska not accessible by the Federal Aid Highway System. This alternative plan must be based on the requirements of section 111 of the Clean Air Act including any increased risks to human health and the environment and must also be based on the unique circumstances related to remote power generation, climatic conditions, and serious economic impacts resulting from implementation of 40 CFR part 60, subpart III. If EPA approves by rulemaking process an alternative plan, the provisions as approved by EPA under that plan shall apply to the diesel engines used in new stationary internal combustion engines subject to this paragraph.

§ 60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

- (a) Owners and operators of stationary CI ICE that do not use diesel fuel, or who have been given authority by the Administrator under §60.4207(d) of this subpart to use fuels that do not meet the fuel requirements of paragraphs (a) and (b) of §60.4207, may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in §60.4202 or §60.4203 using such fuels.
- (b) [Reserved]

GENERAL PROVISIONS

§ 60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

Definitions

§ 60.4219 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

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Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. Stationary CI ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Engine manufacturer means the manufacturer of the engine. See the definition of “manufacturer” in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1039.801.

Model year means either:

- (1) The calendar year in which the engine was originally produced, or
- (2) The annual new model production period of the engine manufacturer if it is different than the calendar year. This must include January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year. For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was originally produced.

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Reciprocating internal combustion engine means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Subpart means 40 CFR part 60, subpart III.

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Useful life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for useful life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for useful life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

Table 1 to Subpart III of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007–2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder

[As stated in §§60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007–2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO _x	HC	NO _x	CO	PM
KW<8 (HP<11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)
19≤KW<37 (25≤HP<50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)
37≤KW<56 (50≤HP<75)			9.2 (6.9)		
56≤KW<75 (75≤HP<100)			9.2 (6.9)		
75≤KW<130 (100≤HP<175)			9.2 (6.9)		
130≤KW<225 (175≤HP<300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

Table 2 to Subpart III of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder

[As stated in §60.4202(a)(1), you must comply with the following emission standards]

Engine power	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)			
	Model year(s)	NO _x + NMHC	CO	PM
KW<8 (HP<11)	2008+	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)

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8≤KW<19 (11≤HP<25)	2008+	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)
19≤KW<37 (25≤HP<50)	2008+	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

Table 3 to Subpart III of Part 60—Certification Requirements for Stationary Fire Pump Engines

[As stated in §60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:]

Engine power	Starting model year engine manufacturers must certify new stationary fire pump engines according to §60.4202(d)
KW<75 (HP<100)	2011
75≤KW<130 (100≤HP<175)	2010
130≤KW≤560 (175≤HP≤750)	2009
KW>560 (HP>750)	2008

Table 4 to Subpart III of Part 60—Emission Standards for Stationary Fire Pump Engines

[As stated in §§60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NO _x	CO	PM
KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011+	7.5 (5.6)		0.40 (0.30)
8≤KW<19 (11≤HP<25)	2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011+	7.5 (5.6)		0.40 (0.30)
19≤KW<37 (25≤HP<50)	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011+	7.5 (5.6)		0.30 (0.22)
37≤KW<56 (50≤HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ ¹	4.7 (3.5)		0.40 (0.30)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ ¹	4.7 (3.5)		0.40 (0.30)
75≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010+ ²	4.0 (3.0)		0.30 (0.22)
130≤KW<225 (175≤HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ ³	4.0 (3.0)		0.20 (0.15)
225≤KW<450 (300≤HP<600)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ ³	4.0 (3.0)		0.20 (0.15)
450≤KW≤560 (600≤HP≤750)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)

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	2009+	4.0 (3.0)		0.20 (0.15)
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008+	6.4 (4.8)		0.20 (0.15)

¹For model years 2011–2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

²For model years 2010–2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

³In model years 2009–2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

Table 5 to Subpart III of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

[You must comply with the labeling requirements in §60.4210(f) and the recordkeeping requirements in §60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine power	Starting model year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

Table 6 to Subpart III of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

[As stated in §60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine speed ¹	Torque (percent) ²	Weighting factors
1	Rated	100	0.30
2	Rated	75	0.50
3	Rated	50	0.20

¹Engine speed: ±2 percent of point.

²Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

Table 7 to Subpart III of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder

[As stated in §60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:]

For each	Complying with the requirement to	You must	Using	According to the following requirements

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1. Stationary CI internal combustion engine with a displacement of ≥ 30 liters per cylinder	a. Reduce NO _x emissions by 90 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O ₂ at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for NO _x concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and,	(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurements for NO _x concentration.
		iv. Measure NO _x at the inlet and outlet of the control device	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(d) NO _x concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	b. Limit the concentration of NO _x in the stationary CI internal combustion engine exhaust.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, Appendix A	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location; and,	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurement for NO _x concentration.

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		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and,	(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurement for NO _x concentration.
		iv. Measure NO _x at the exhaust of the stationary internal combustion engine	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(d) NO _x concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	c. Reduce PM emissions by 60 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O ₂ at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the inlet and outlet of the control device	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, Appendix A	(a) If using a control device, the sampling site must be located at the outlet of the control device.

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		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the exhaust of the stationary internal combustion engine	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

Table 8 to Subpart III of Part 60—Applicability of General Provisions to Subpart III
[As stated in §60.4218, you must comply with the following applicable General Provisions:]

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§60.1	General applicability of the General Provisions	Yes	
§60.2	Definitions	Yes	Additional terms defined in §60.4219.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	
§60.6	Review of plans	Yes	
§60.7	Notification and Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4214(a).
§60.8	Performance tests	Yes	Except that §60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified.
§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards	No	Requirements are specified in subpart III.

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General Provisions citation	Subject of citation	Applies to subpart	Explanation
§60.1	General applicability of the General Provisions	Yes	
§60.2	Definitions	Yes	Additional terms defined in §60.4219.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	
§60.6	Review of plans	Yes	
§60.7	Notification and Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4214(a).
§60.8	Performance tests	Yes	Except that §60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified.
§60.9	Availability of information and maintenance requirements	Yes	
§60.12	Circumvention	Yes	
§60.13	Monitoring requirements	Yes	Except that §60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder.
§60.14	Modification	Yes	
§60.15	Reconstruction	Yes	
§60.16	Priority list	Yes	
§60.17	Incorporations by reference	Yes	
§60.18	General control device requirements	No	
§60.19	General notification and reporting requirements	Yes	

APPENDIX NESHAP, SUBPART ZZZZ
REQUIREMENTS FOR RECIPROCATING INTERNAL COMBUSTION ENGINES

40 CFR Part 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Source: 69 FR 33506, June 15, 2004, unless otherwise noted.

Federal Regulations Adopted by Reference

Federal Revision Date: June 30, 2010

State Rule Effective Date: This version has not yet been adopted by the state

Standardized Conditions Revision Date: August 11, 2010

What This Subpart Covers

§ 63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

[73 FR 3603, Jan. 18, 2008]

§ 63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

- (a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.
- (b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.
- (c) An area source of HAP emissions is a source that is not a major source.
- (d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.
- (e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008]

§ 63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

- (a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.
 - (1) *Existing stationary RICE.*
 - (i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

APPENDIX NESHAP, SUBPART ZZZZ

REQUIREMENTS FOR RECIPROCATING INTERNAL COMBUSTION ENGINES

- (ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.
- (iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.
- (iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) *New stationary RICE.*

- (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.
- (ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.
- (iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(3) *Reconstructed stationary RICE.*

- (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.
- (ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.
- (iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(b) *Stationary RICE subject to limited requirements.*

- (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).
 - (i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
 - (ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
- (2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(h) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.
- (3) A stationary RICE which is an existing spark ignition 4 stroke rich burn (4SRB) stationary RICE located at an area source of HAP emissions; an existing spark ignition 4SRB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions; an existing spark ignition 2 stroke lean burn (2SLB) stationary RICE; an existing spark ignition 4 stroke lean burn (4SLB) stationary RICE; an existing compression ignition emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions; an existing spark ignition emergency or limited use stationary RICE; an existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions; an existing stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; or an existing stationary residential, commercial, or institutional emergency stationary RICE located

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at an area source of HAP emissions, does not have to meet the requirements of this subpart and of subpart A of this part. No initial notification is necessary.

- (c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that is a new or reconstructed stationary RICE located at an area source, or is a new or reconstructed stationary RICE located at a major source of HAP emissions and is a spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of less than 500 brake HP, a spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of less than 250 brake HP, or a 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP, a stationary RICE with a site rating of less than or equal to 500 brake HP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP, or a compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP, must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010]

§ 63.6595 When do I have to comply with this subpart?

(a) *Affected Sources.*

- (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013.
- (2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.
- (3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
- (4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.
- (5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
- (6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.
- (7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

- (b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

- (1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

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- (2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.
- (c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010]

Emission and Operating Limitations

§ 63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

- (a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.
- (b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.
- (c) If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.
- (d) If you own or operate an existing non-emergency stationary CI RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010]

§ 63.6601 What emission limitations must I meet if I own or operate a 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart. If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010]

§ 63.6602 What emission limitations must I meet if I own or operate an existing stationary CI RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?

If you own or operate an existing stationary CI RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

[75 FR 9675, Mar. 3, 2010]

§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary CI RICE located at an area source of HAP emissions?

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Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

- (a) If you own or operate an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart which apply to you.
- (b) If you own or operate an existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the Federal Aid Highway System (FAHS) you do not have to meet the numerical CO emission limitations specified in Table 2d to this subpart. Existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the FAHS must meet the management practices that are shown for stationary non-emergency CI RICE less than or equal to 300 HP in Table 2d to this subpart.

[75 FR 9675, Mar. 3, 2010]

§ 63.6604 What fuel requirements must I meet if I own or operate an existing stationary CI RICE?

If you own or operate an existing non-emergency CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Existing non-emergency CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or at area sources in areas of Alaska not accessible by the FAHS are exempt from the requirements of this section.

[75 FR 9675, Mar. 3, 2010]

General Compliance Requirements

§ 63.6605 What are my general requirements for complying with this subpart?

- (a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.
- (b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[75 FR 9675, Mar. 3, 2010]

Testing and Initial Compliance Requirements

§ 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

- (a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).
- (b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).
- (c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second

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performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

- (d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.
- (1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
 - (2) The test must not be older than 2 years.
 - (3) The test must be reviewed and accepted by the Administrator.
 - (4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.
 - (5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3605, Jan. 18, 2008]

§ 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions specified in Table 4 to this subpart, as appropriate.

[73 FR 3605, Jan. 18, 2008]

§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

If you own or operate an existing CI stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary CI RICE located at an area source of HAP emissions you are subject to the requirements of this section.

- (a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).
- (b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.
 - (1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
 - (2) The test must not be older than 2 years.
 - (3) The test must be reviewed and accepted by the Administrator.
 - (4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

[75 FR 9676, Mar. 3, 2010]

§ 63.6615 When must I conduct subsequent performance tests?

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If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

§ 63.6620 What performance tests and other procedures must I use?

- (a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.
- (b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again.
- (c) [Reserved]
- (d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.
- (e)
 - (1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 1})$$

Where:

C_i = concentration of CO or formaldehyde at the control device inlet,

C_o = concentration of CO or formaldehyde at the control device outlet, and

R = percent reduction of CO or formaldehyde emissions.

- (2) You must normalize the carbon monoxide (CO) or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO₂). If pollutant concentrations are to be corrected to 15 percent oxygen and CO₂ concentration is measured in lieu of oxygen concentration measurement, a CO₂ correction factor is needed. Calculate the CO₂ correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.
 - (i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 2})$$

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO₂ volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/10⁶ Btu).

F_c = Ratio of the volume of CO₂ produced to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/10⁶ Btu).

- (ii) Calculate the CO₂ correction factor for correcting measurement data to 15 percent oxygen, as follows:

$$X_{co_2} = \frac{5.9}{F_o} \quad (\text{Eq. 3})$$

Where:

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X_{CO_2} = CO₂ correction factor, percent.

5.9 = 20.9 percent O₂–15 percent O₂, the defined O₂ correction value, percent.

(iii) Calculate the NO_x and SO₂ gas concentrations adjusted to 15 percent O₂ using CO₂ as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 4})$$

Where:

%CO₂ = Measured CO₂ concentration measured, dry basis, percent.

- (f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.
- (g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.
- (1) Identification of the specific parameters you propose to use as operating limitations;
 - (2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;
 - (3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;
 - (4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
 - (5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.
- (h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.
- (1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (*e.g.*, operator adjustment, automatic controller adjustment, etc.) or unintentionally (*e.g.*, wear and tear, error, etc.) on a routine basis or over time;
 - (2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;
 - (3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;
 - (4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;
 - (5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;
 - (6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and
 - (7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.

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- (i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010]

§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

- (a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either oxygen or CO₂ at both the inlet and the outlet of the control device according to the requirements in paragraphs (a)(1) through (4) of this section.
- (1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.
 - (2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in §63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
 - (3) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.
 - (4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO₂ concentration.
- (b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in §63.8.
- (c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.
- (d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.
- (e) If you own or operate an existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions, an existing stationary emergency RICE, or an existing stationary RICE located at an area source of HAP emissions not subject to any numerical emission standards shown in Table 2d to this subpart, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
- (f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.
- (g) If you own or operate an existing non-emergency CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (g)(2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines

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located at area sources in areas of Alaska not accessible by the FAHS do not have to meet the requirements of paragraph (g) in this section.

- (1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or
 - (2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.
- (h) If you operate a new or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.
- (i) If you own or operate a stationary engine that is subject to the work, operation or management practices in items 1, 2, or 4 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil before continuing to use the engine. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010]

§ 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?

- (a) You must demonstrate initial compliance with each emission and operating limitation that applies to you according to Table 5 of this subpart.
- (b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.
- (c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.

Continuous Compliance Requirements

§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?

- (a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.
- (b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously at all times that the stationary RICE is operating.
- (c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

§ 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

- (a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.
- (b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements

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in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

- (c) [Reserved]
- (d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).
- (e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.
- (f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a new emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the engine according to the conditions described in paragraphs (f)(1) through (4) of this section.
 - (1) For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.
 - (2) There is no time limit on the use of emergency stationary RICE in emergency situations.
 - (3) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.
 - (4) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(4), as long as the power provided by the financial arrangement is limited to emergency power.

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[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010]

Notifications, Reports, and Records

§ 63.6645 What notifications must I submit and when?

- (a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following:
- (1) An existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.
 - (2) An existing stationary CI RICE located at an area source of HAP emissions.
 - (3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
 - (4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.
 - (5) This requirement does not apply if you own or operate an existing stationary CI RICE less than 100 HP, an existing stationary emergency CI RICE, or an existing stationary CI RICE that is not subject to any numerical emission standards.
- (b) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.
- (c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.
- (d) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008.
- (e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.
- (f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).
- (g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).
- (h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).
- (1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.
 - (2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010]

§ 63.6650 What reports must I submit and when?

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- (a) You must submit each report in Table 7 of this subpart that applies to you.
- (b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.
 - (1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.
 - (2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.
 - (3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
 - (4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
 - (5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.
 - (6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.
 - (7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.
 - (8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.
 - (9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.
- (c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.
 - (1) Company name and address.
 - (2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
 - (3) Date of report and beginning and ending dates of the reporting period.
 - (4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.
 - (5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.
 - (6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

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- (d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.
- (1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.
 - (2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
- (e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.
- (1) The date and time that each malfunction started and stopped.
 - (2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
 - (3) The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).
 - (4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.
 - (5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.
 - (6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
 - (7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.
 - (8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.
 - (9) A brief description of the stationary RICE.
 - (10) A brief description of the CMS.
 - (11) The date of the latest CMS certification or audit.
 - (12) A description of any changes in CMS, processes, or controls since the last reporting period.
- (f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.
- (g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.
- (1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.
 - (2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.

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(3) Any problems or errors suspected with the meters.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010]

§ 63.6655 What records must I keep?

- (a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.
- (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).
 - (2) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.
 - (3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).
 - (4) Records of all required maintenance performed on the air pollution control and monitoring equipment.
 - (5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- (b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.
- (1) Records described in §63.10(b)(2)(vi) through (xi).
 - (2) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).
 - (3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.
- (c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.
- (d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.
- (e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;
- (1) An existing stationary CI RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.
 - (2) An existing stationary emergency CI RICE.
 - (3) An existing stationary CI RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.
- (f) If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.
- (1) An existing emergency stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.
 - (2) An existing emergency stationary CI RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

§ 63.6660 In what form and how long must I keep my records?

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- (a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).
- (b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

Other Requirements and Information

§ 63.6665 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

[75 FR 9678, Mar. 3, 2010]

§ 63.6670 Who implements and enforces this subpart?

- (a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.
- (b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.
- (c) The authorities that will not be delegated to State, local, or tribal agencies are:
 - (1) Approval of alternatives to the non-opacity emission limitations and operating limitations in §63.6600 under §63.6(g).
 - (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.
 - (3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.
 - (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.
 - (5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in §63.6610(b).

§ 63.6675 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

Area source means any stationary source of HAP that is not a major source as defined in part 63.

Associated equipment as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of

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custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

Black start engine means an engine whose only purpose is to start up a combustion turbine.

CAA means the Clean Air Act (42 U.S.C. 7401 *et seq.*, as amended by Public Law 101–549, 104 Stat. 2399).

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Custody transfer means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
- (3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless of whether or not such failure is permitted by this subpart.
- (4) Fails to satisfy the general duty to minimize emissions established by §63.6(e)(1)(i).

Diesel engine means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties (*e.g.* biodiesel) that is suitable for use in compression ignition engines.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO₂.

Dual-fuel engine means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

Emergency stationary RICE means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, *etc.* Stationary CI ICE used for peak shaving are not considered emergency stationary ICE. Stationary CI ICE used to supply power to an electric grid or that supply non-emergency power as part of a financial arrangement with another entity are not considered to be emergency engines, except as permitted under §63.6640(f). Emergency stationary RICE with a site-rating of more than 500 brake HP located at a major source of HAP emissions that were installed prior to June 12, 2006, may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance. Emergency stationary RICE with a site-rating of more than 500 brake HP located at a major source of HAP emissions that were installed prior to June 12, 2006, may also operate an additional 50 hours per year in non-emergency situations. All other emergency stationary RICE must comply with the requirements specified in §63.6640(f).

Engine startup means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

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Four-stroke engine means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

Gaseous fuel means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

Gasoline means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

Glycol dehydration unit means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes "rich" glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The "lean" glycol is then recycled.

Hazardous air pollutants (HAP) means any air pollutants listed in or pursuant to section 112(b) of the CAA.

ISO standard day conditions means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO₂.

Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Limited use stationary RICE means any stationary RICE that operates less than 100 hours per year.

Liquefied petroleum gas means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

Liquid fuel means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

Major Source, as used in this subpart, shall have the same meaning as in §63.2, except that:

- (1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;
- (2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated;
- (3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and
- (4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated.

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 which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

Non-selective catalytic reduction (NSCR) means an add-on catalytic nitrogen oxides (NO_x) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_x, CO, and volatile organic compounds (VOC) into CO₂, nitrogen, and water.

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Oil and gas production facility as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded (*i.e.*, remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

Oxidation catalyst means an add-on catalytic control device that controls CO and VOC by oxidation.

Peaking unit or engine means any standby engine intended for use during periods of high demand that are not emergencies.

Percent load means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in §63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to §63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to §63.1270(a)(2).

Production field facility means those oil and gas production facilities located prior to the point of custody transfer.

Production well means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C₃H₈.

Residential/commercial/institutional emergency stationary RICE means an emergency stationary RICE used in residential establishments such as homes or residences, commercial establishments such as office buildings, hotels, or stores, or institutional establishments such as medical centers, research centers, and institutions of higher education.

Responsible official means responsible official as defined in 40 CFR 70.2.

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NO_x(such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

Site-rated HP means the maximum manufacturer's design capacity at engine site conditions.

Spark ignition means relating to either: A gasoline-fueled engine; or any other type of engine a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary reciprocating internal combustion engine (RICE) means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

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Stationary RICE test cell/stand means an engine test cell/stand, as defined in subpart P P P P P of this part, that tests stationary RICE.

Stoichiometric means the theoretical air-to-fuel ratio required for complete combustion.

Storage vessel with the potential for flash emissions means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

Subpart means 40 CFR part 63, subpart ZZZZ.

Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

Two-stroke engine means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010]

Table 1a to Subpart ZZZZ of Part 63—Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations for existing, new and reconstructed 4SRB stationary RICE at 100 percent load plus or minus 10 percent:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 4SRB stationary RICE	a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. ¹
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbv or less at 15 percent O ₂	

¹Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices. [75 FR 9679, Mar. 3, 2010]

Table 1b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

[As stated in §§63.6600, 63.6630 and 63.6640, you must comply with the following operating emission limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions]

For each...	You must meet the following operating limitation...
1. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and

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For each...	You must meet the following operating limitation...
4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O ₂ and using NSCR.	b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.
2. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or	Comply with any operating limitations approved by the Administrator.
4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O ₂ and not using NSCR.	

[73 FR 3607, Jan. 18, 2008]

Table 2a to Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 2SLB stationary RICE	a. Reduce CO emissions by 58 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O ₂ . If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O ₂ until June 15, 2007	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. ¹
2. 4SLB stationary RICE	a. Reduce CO emissions by 93 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O ₂	
3. CI stationary RICE	a. Reduce CO emissions by 70 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15	

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	percent O ₂	
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¹Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.
[75 FR 9680, Mar. 3, 2010]

Table 2b to Subpart ZZZZ of Part 63—Operating Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP Located at a Major Source of HAP Emissions, Existing Non-Emergency Compression Ignition Stationary RICE >500 HP, and New and Reconstructed 4SLB Burn Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600, 63.6601, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed lean burn and existing, new and reconstructed compression ignition stationary RICE:

For each . . .	You must meet the following operating limitation . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst	a. Maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F. ¹
2. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and not using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst	Comply with any operating limitations approved by the Administrator.

¹Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(g) for a different temperature range.
[75 FR 9680, Mar. 3, 2010]

Table 2c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary Rice Located at Major Sources of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency CI and black start CI. ¹	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; ² b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. ³

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For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. ³	
2. Non-Emergency, non-black start CI < 100 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; ²	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. ³	
3. Non-Emergency, non-black start CI RICE $100 \leq \text{HP} \leq 300$ HP	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O ₂ .	
4. Non-Emergency, non-black start CI $300 < \text{HP} \leq 500$	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O ₂ ; or	
	b. Reduce CO emissions by 70 percent or more.	
5. Non-Emergency, non-black start CI > 500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O ₂ ; or	
	b. Reduce CO emissions by 70 percent or more.	

¹If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be

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delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

²Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2c of this subpart.

³Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9681, Mar. 3, 2010]

Table 2d to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at Area Sources of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission and operating limitations for existing compression ignition stationary RICE:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Non-Emergency, non-black start CI ≤ 300 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; ¹	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary	
2. Non-Emergency, non-black start CI 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O ₂ ; or	
	b. Reduce CO emissions by 70 percent or more	
3. Non-Emergency, non-black start CI > 500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O ₂ ; or	
	b. Reduce CO emissions by 70 percent or more	
4. Emergency CI and black start CI. ²	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; ¹	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts	

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	every 500 hours of operation or annually, whichever comes first, and replace as necessary	
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¹Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

²If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

[75 FR 9681, Mar. 3, 2010]

Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests

As stated in §§63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

For each . . .	Complying with the requirement to . . .	You must . . .
1. 2SLB and 4SLB stationary RICE with a brake horsepower >500 located at major sources and new or reconstructed CI stationary RICE with a brake horsepower >500 located at major sources	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually. ¹
2. 4SRB stationary RICE with a brake horsepower ≥5,000 located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually. ¹
3. Stationary RICE with a brake horsepower >500 located at major sources	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually. ¹
4. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are not limited use stationary RICE	Limit or reduce CO or formaldehyde emissions	Conduct subsequent performance tests every 8,760 hrs or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are limited use stationary RICE		Conduct subsequent performance tests every 8,760 hrs or 5 years, whichever comes first.

¹After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[75 FR 9682, Mar. 3, 2010]

Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests

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As stated in §§63.6610, 63.6611, 63.6612, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE for existing sources:

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB, 4SLB, and CI stationary RICE	a. Reduce CO emissions	i. Measure the O ₂ at the inlet and outlet of the control device; and	(1) Portable CO and O ₂ analyzer.	(a) Using ASTM D6522-00 (2005) ^a (incorporated by reference, <i>see</i> §63.14). Measurements to determine O ₂ must be made at the same time as the measurements for CO concentration.
		ii. Measure the CO at the inlet and the outlet of the control device	(1) Portable CO and O ₂ analyzer.	(a) Using ASTM D6522-00 (2005) ^{a,b} (incorporated by reference, <i>see</i> §63.14) or Method 10 of 40 CFR appendix A. The CO concentration must be at 15 percent O ₂ dry basis.
2. 4SRB stationary RICE	a. Reduce formaldehyde emissions	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O ₂ at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00 (2005)	(a) Measurements to determine O ₂ concentration must be made at the same time as the measurements for formaldehyde concentration.
		iii. Measure moisture content at the inlet and outlet of the control device; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the inlet and the outlet of the control device.	(1) Method 320 of 40 CFR part 63, appendix A; or ASTM D6348-03 ^c , provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130.	(a) Formaldehyde concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

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For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
3. Stationary RICE	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O ₂ concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00 (2005)	(a) Measurements to determine O ₂ concentration must be made at the same time and location as the measurements for formaldehyde concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the exhaust of the stationary RICE; or	(1) Method 320 of 40 CFR part 63, appendix A; or ASTM D6348–03 ^c , provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. Measure CO at the exhaust of the stationary RICE.	(1) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522–00 (2005) ^a , Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03	(a) CO concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour longer runs.

^aYou may also use Methods 3A and 10 as options to ASTM–D6522–00 (2005). You may obtain a copy of ASTM–D6522–00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106. ASTM–D6522–00 (2005) may be used to test both CI and SI stationary RICE.

^bYou may also use Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03.

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°You may obtain a copy of ASTM–D6348–03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

[75 FR 9682, Mar. 3, 2010]

Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations and Operating Limitations

As stated in §§63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
1. 2SLB and 4SLB stationary RICE >500 HP located at a major source and new or reconstructed CI stationary RICE >500 HP located at a major source	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. 2SLB and 4SLB stationary RICE >500 HP located at a major source and new or reconstructed CI stationary RICE >500 HP located at a major source	a. Reduce CO emissions and not using oxidation catalyst	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
3. 2SLB and 4SLB stationary RICE >500 HP located at a major source and new or reconstructed CI stationary RICE >500 HP located at a major source	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O ₂ or CO ₂ at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and
		ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful

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For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.
4. 4SRB stationary RICE >500 HP located at a major source	a. Reduce formaldehyde emissions and using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
5. 4SRB stationary RICE >500 HP located at a major source	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
6. Stationary RICE >500 HP located at a major source	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O ₂ , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
7. Stationary RICE >500 HP located at a major source	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O ₂ , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the

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For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
8. Existing stationary non-emergency RICE ≥100 HP located at a major source, existing non-emergency CI stationary RICE >500 HP, and existing stationary non-emergency RICE ≥100 HP located at an area source	a. Reduce CO or formaldehyde emissions	i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.
9. Existing stationary non-emergency RICE ≥100 HP located at a major source, existing non-emergency CI stationary RICE >500 HP, and existing stationary non-emergency RICE ≥100 HP located at an area source	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O ₂ , dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.

[75 FR 9684, Mar. 3, 2010]

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations and Operating Limitations

As stated in §63.6640, you must continuously comply with the emissions and operating limitations as required by the following:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. 2SLB and 4SLB stationary RICE >500 HP located at a major source and CI stationary RICE >500 HP located at a major source	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved ^a ; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.

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For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
2. 2SLB and 4SLB stationary RICE >500 HP located at a major source and CI stationary RICE >500 HP located at a major source	a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved ^a ; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
3. 2SLB and 4SLB stationary RICE >500 HP located at a major source and CI stationary RICE >500 HP located at a major source	a. Reduce CO emissions and using a CEMS	i. Collecting the monitoring data according to §63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction of CO emissions according to §63.6620; and
		ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period; and
		iii. Conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
4. 4SRB stationary RICE >500 HP located at a major source	a. Reduce formaldehyde emissions and using NSCR	i. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		ii. reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
5. 4SRB stationary RICE >500 HP located at a major source	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters

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For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		established during the performance test.
6. 4SRB stationary RICE with a brake HP $\geq 5,000$ located at a major source	Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved. ^a
7. Stationary RICE >500 HP located at a major source	Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit ^a ; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
8. Stationary RICE >500 HP located at a major source	Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit ^a ; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
9. Existing stationary CI RICE not subject to any numerical emission limitations	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or
		ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
10. Existing stationary RICE >500 HP that are not limited use stationary	a. Reduce CO or formaldehyde emissions; or b. Limit the concentration	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or

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For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
RICE, except 4SRB >500 HP located at major sources	of formaldehyde or CO in the stationary RICE exhaust	formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit.
11. Existing limited use stationary RICE >500 HP that are limited use CI stationary RICE	a. Reduce CO or formaldehyde emissions; or b. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit.

^aAfter you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[75 FR 9685, Mar. 3, 2010]

Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports

As stated in §63.6650, you must comply with the following requirements for reports:

You must submit a(n) . . .	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or	i. Semiannually according to the requirements in §63.6650(b)(1)–(5) for engines that are not limited use stationary CI RICE subject to numerical emission limitations; and ii. Annually according to the requirements in §63.6650(b)(6)–(9) for engines that are limited use stationary CI RICE subject to numerical emission limitations.
	b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or	i. Semiannually according to the requirements in §63.6650(b).
	c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4).	i. Semiannually according to the requirements in §63.6650(b).
2. Report	a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by	i. Annually, according to the requirements in §63.6650.

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You must submit a(n) . . .	The report must contain . . .	You must submit the report . . .
	landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and	
	b. The operating limits provided in your Federally enforceable permit, and any deviations from these limits; and	i. <i>See</i> item 2.a.i.
	c. Any problems or errors suspected with the meters	i. <i>See</i> item 2.a.i.

[75 FR 9687, Mar. 3, 2010]

Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ.

As stated in §63.6665, you must comply with the following applicable general provisions.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.1	General applicability of the General Provisions	Yes.	
§63.2	Definitions	Yes	Additional terms defined in §63.6675.
§63.3	Units and abbreviations	Yes.	
§63.4	Prohibited activities and circumvention	Yes.	
§63.5	Construction and reconstruction	Yes.	
§63.6(a)	Applicability	Yes.	
§63.6(b)(1)–(4)	Compliance dates for new and reconstructed sources	Yes.	
§63.6(b)(5)	Notification	Yes.	
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.	
§63.6(c)(1)–(2)	Compliance dates for existing sources	Yes.	
§63.6(c)(3)–(4)	[Reserved]		
§63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.	
§63.6(d)	[Reserved]		
§63.6(e)	Operation and maintenance	No.	

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General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.6(f)(1)	Applicability of standards	No.	
§63.6(f)(2)	Methods for determining compliance	Yes.	
§63.6(f)(3)	Finding of compliance	Yes.	
§63.6(g)(1)–(3)	Use of alternate standard	Yes.	
§63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§63.6(i)	Compliance extension procedures and criteria	Yes.	
§63.6(j)	Presidential compliance exemption	Yes.	
§63.7(a)(1)–(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612.
§63.7(a)(3)	CAA section 114 authority	Yes.	
§63.7(b)(1)	Notification of performance test	Yes	Except that §63.7(b)(1) only applies as specified in §63.6645.
§63.7(b)(2)	Notification of rescheduling	Yes	Except that §63.7(b)(2) only applies as specified in §63.6645.
§63.7(c)	Quality assurance/test plan	Yes	Except that §63.7(c) only applies as specified in §63.6645.
§63.7(d)	Testing facilities	Yes.	
§63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620.
§63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at §63.6620.
§63.7(e)(3)	Test run duration	Yes.	
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes.	
§63.7(f)	Alternative test method provisions	Yes.	
§63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes.	
§63.7(h)	Waiver of tests	Yes.	
§63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at

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General provisions citation	Subject of citation	Applies to subpart	Explanation
			§63.6625.
§63.8(a)(2)	Performance specifications	Yes.	
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring for control devices	No.	
§63.8(b)(1)	Monitoring	Yes.	
§63.8(b)(2)–(3)	Multiple effluents and multiple monitoring systems	Yes.	
§63.8(c)(1)	Monitoring system operation and maintenance	Yes.	
§63.8(c)(1)(i)	Routine and predictable SSM	Yes.	
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes.	
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	Yes.	
§63.8(c)(2)–(3)	Monitoring system installation	Yes.	
§63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§63.8(c)(6)–(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§63.8(d)	CMS quality control	Yes.	
§63.8(e)	CMS performance evaluation	Yes	Except for §63.8(e)(5)(ii), which applies to COMS.
		Except that §63.8(e) only applies as specified in §63.6645.	
§63.8(f)(1)–(5)	Alternative monitoring method	Yes	Except that §63.8(f)(4) only applies as specified in §63.6645.
§63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that §63.8(f)(6) only applies as specified in §63.6645.
§63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at

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General provisions citation	Subject of citation	Applies to subpart	Explanation
			§§63.6635 and 63.6640.
§63.9(a)	Applicability and State delegation of notification requirements	Yes.	
§63.9(b)(1)–(5)	Initial notifications	Yes	Except that §63.9(b)(3) is reserved.
		Except that §63.9(b) only applies as specified in §63.6645.	
§63.9(c)	Request for compliance extension	Yes	Except that §63.9(c) only applies as specified in §63.6645.
§63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that §63.9(d) only applies as specified in §63.6645.
§63.9(e)	Notification of performance test	Yes	Except that §63.9(e) only applies as specified in §63.6645.
§63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(1)	Notification of performance evaluation	Yes	Except that §63.9(g) only applies as specified in §63.6645.
§63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
		Except that §63.9(g) only applies as specified in §63.6645.	
§63.9(h)(1)–(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.
			Except that §63.9(h) only applies as specified in §63.6645.
§63.9(i)	Adjustment of submittal deadlines	Yes.	
§63.9(j)	Change in previous information	Yes.	
§63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§63.10(b)(1)	Record retention	Yes.	

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General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.10(b)(2)(i)–(v)	Records related to SSM	No.	
§63.10(b)(2)(vi)–(xi)	Records	Yes.	
§63.10(b)(2)(xii)	Record when under waiver	Yes.	
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§63.10(b)(3)	Records of applicability determination	Yes.	
§63.10(c)	Additional records for sources using CEMS	Yes	Except that §63.10(c)(2)–(4) and (9) are reserved.
§63.10(d)(1)	General reporting requirements	Yes.	
§63.10(d)(2)	Report of performance test results	Yes.	
§63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.10(d)(4)	Progress reports	Yes.	
§63.10(d)(5)	Startup, shutdown, and malfunction reports	No.	
§63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes.	
§63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§63.10(e)(3)	Excess emission and parameter exceedances reports	Yes.	Except that §63.10(e)(3)(i) (C) is reserved.
§63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§63.10(f)	Waiver for recordkeeping/reporting	Yes.	
§63.11	Flares	No.	
§63.12	State authority and delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by reference	Yes.	
§63.15	Availability of information	Yes.	

[75 FR 9688, Mar. 3, 2010]

APPENDIX RR

FACILITY-WIDE REPORTING REQUIREMENTS

(Version Dated 9/17/2009)

RR1. Reporting Schedule. This table summarizes information for convenience purposes only. It does not supersede any of the terms or conditions of this permit.

Report	Reporting Deadline(s)	Related Condition(s)
Plant Problems/Permit Deviations	Immediately upon occurrence (See RR2.d.)	RR2, RR3
Malfunction Excess Emissions Report	Quarterly (if requested)	RR3
Semi-Annual Monitoring Report	Every 6 months	RR4
Annual Operating Report	April 1	RR5
Annual Emissions Fee Form and Fee	March 1	RR6
Annual Statement of Compliance	Within 60 days after the end of each calendar year (or more frequently if specified by Rule 62-213.440(2), F.A.C., or by any other applicable requirement); and Within 60 days after submittal of a written agreement for transfer of responsibility, or Within 60 days after permanent shutdown.	RR7
Notification of Administrative Permit Corrections	As needed	RR8
Notification of Startup after Shutdown for More than One Year	Minimum of 60 days prior to the intended startup date or, if emergency startup, as soon as possible after the startup date is ascertained	RR9
Permit Renewal Application	225 days prior to the expiration date of permit	TV17
Test Reports	Maximum 45 days following compliance tests	TR8

{Permitting Note: See permit Section III. Emissions Units and Specific Conditions, for any additional Emission Unit-specific reporting requirements.}

RR2. Reports of Problems.

- a. Plant Operation-Problems. If the permittee is temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the EPD. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its 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 EPD rules.
- b. 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 the EPD with the following information:
 - (1) A description of and cause of noncompliance; and
 - (2) 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 the EPD for penalties or for revocation of this permit.
- c. When requested by the 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

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aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the EPD, such facts or information shall be corrected promptly.

- d. "Immediately" shall mean the same day, if during a workday (i.e., 8:00 a.m. - 5:00 p.m.), or the first business day after the incident, excluding weekends and holidays; and, for purposes of Rule 62-4.160(15) and 40 CFR 70.6(a)(3)(iii)(B), "promptly" or "prompt" shall have the same meaning as "immediately". [Rule 62-4.130, Rule 62-4.160(8), Rule 62-4.160(15), and Rule 62-213.440(1)(b), F.A.C.; 40 CFR 70.6(a)(3)(iii)(B)]

RR3. Reports of Deviations from Permit Requirements. The permittee shall report in accordance with the requirements of Rule 62-210.700(6), F.A.C. (below), and Rule 62-4.130, F.A.C. (condition RR2.), deviations from permit requirements, including those attributable to upset conditions as defined in the permit. Reports shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. *Rule 62-210.700(6):* In case of excess emissions resulting from malfunctions, each owner or operator shall notify the EPD in accordance with Rule 62-4.130, F.A.C. (See condition RR2.). A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the EPD. [Rules 62-213.440(1)(b)3.b., and 62-210.700(6)F.A.C.]

RR4. Semi-Annual Monitoring Reports. The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports. [Rule 62-213.440(1)(b)3.a., F.A.C.]

RR5. Annual Operating Report.

- a. The permittee shall submit to the EPD, each calendar year, on or before April 1, a completed DEP Form No 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility", for the preceding calendar year.
- b. Emissions shall be computed in accordance with the provisions of Rule 62-210.370(2), F.A.C. [Rules 62-210.370(2) & (3), and 62-213.440(3)(a)2., F.A.C.]

RR6. Annual Emissions Fee Form and Fee. Each Title V source permitted to operate in Florida must pay between January 15 and March 1 of each year, an annual emissions fee in an amount determined as set forth in Rule 62-213.205(1), F.A.C.

- a. If the Department has not received the fee by February 15 of the year following the calendar year for which the fee is calculated, the Department will send the primary responsible official of the Title V source a written warning of the consequences for failing to pay the fee by March 1. If the fee is not postmarked by March 1 of the year due, the Department shall impose, in addition to the fee, a penalty of 50 percent of the amount of the fee unpaid plus interest on such amount computed in accordance with Section 220.807, F.S. If the Department determines that a submitted fee was inaccurately calculated, the Department shall either refund to the permittee any amount overpaid or notify the permittee of any amount underpaid. The Department shall not impose a penalty or interest on any amount underpaid, provided that the permittee has timely remitted payment of at least 90 percent of the amount determined to be due and remits full payment within 60 days after receipt of notice of the amount underpaid. The Department shall waive the collection of underpayment and shall not refund overpayment of the fee, if the amount is less than 1 percent of the fee due, up to \$50.00. The Department shall make every effort to provide a timely assessment of the adequacy of the submitted fee. Failure to pay timely any required annual emissions fee, penalty, or interest constitutes grounds for permit revocation pursuant to Rule 62-4.100, F.A.C.
- b. Any documentation of actual hours of operation, actual material or heat input, actual production amount, or actual emissions used to calculate the annual emissions fee shall be retained by the owner for a minimum of five (5) years and shall be made available to the Department upon request.
- c. A completed DEP Form 62-213.900(1), "Major Air Pollution Source Annual Emissions Fee Form", must be submitted by a responsible official with the annual emissions fee. [Rules 62-213.205(1), (1)(g), (1)(i) & (1)(j), F.A.C.]

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RR7. Annual Statement of Compliance.

- a. The permittee shall submit a Statement of Compliance with all terms and conditions of the permit that includes all the provisions of 40 CFR 70.6(c)(5)(iii), incorporated by reference at Rule 62-204.800, F.A.C., using DEP Form No. 62-213.900(7). Such statement shall be accompanied by a certification in accordance with Rule 62-213.420(4), F.A.C., for Title V requirements and with Rule 62-214.350, F.A.C., for Acid Rain requirements. Such statements shall be submitted (postmarked) to the EPD and EPA:
 - (1) Annually, within 60 days after the end of each calendar year during which the Title V permit was effective, or more frequently if specified by Rule 62-213.440(2), F.A.C., or by any other applicable requirement; and
 - (2) Within 60 days after submittal of a written agreement for transfer of responsibility as required pursuant to 40 CFR 70.7(d)(1)(iv), adopted and incorporated by reference at Rule 62-204.800, F.A.C., or within 60 days after permanent shutdown of a facility permitted under Chapter 62-213, F.A.C.; provided that, in either such case, the reporting period shall be the portion of the calendar year the permit was effective up to the date of transfer of responsibility or permanent facility shutdown, as applicable.
- b. In lieu of individually identifying all applicable requirements and specifying times of compliance with, non-compliance with, and deviation from each, the responsible official may use DEP Form No. 62-213.900(7) as such statement of compliance so long as the responsible official identifies all reportable deviations from and all instances of non-compliance with any applicable requirements and includes all information required by the federal regulation relating to each reportable deviation and instance of non-compliance.
- c. The responsible official may treat compliance with all other applicable requirements as a surrogate for compliance with Rule 62-296.320(2), Objectionable Odor Prohibited.
[Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

RR8. Notification of Administrative Permit Corrections.

- a. A facility owner shall notify the EPD by letter of minor corrections to information contained in a permit. Such notifications shall include:
 - (1) Typographical errors noted in the permit;
 - (2) Name, address or phone number change from that in the permit;
 - (3) A change requiring more frequent monitoring or reporting by the permittee;
 - (4) A change in ownership or operational control of a facility, subject to the following provisions:
 - (a) The EPD determines that no other change in the permit is necessary;
 - (b) The permittee and proposed new permittee have submitted an Application for Transfer of Air Permit, and the EPD has approved the transfer pursuant to Rule 62-210.300(7), F.A.C.; and
 - (c) The new permittee has notified the EPD of the effective date of sale or legal transfer.
 - (5) Changes listed at 40 CFR 72.83(a)(1), (2), (6), (9) and (10), adopted and incorporated by reference at Rule 62-204.800, F.A.C., and changes made pursuant to Rules 62-214.340(1) and (2), F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-7651o;
 - (6) Changes listed at 40 CFR 72.83(a)(11) and (12), adopted and incorporated by reference at Rule 62-204.800, F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-7651o, provided the notification is accompanied by a copy of any EPA determination concerning the similarity of the change to those listed at Rule 62-210.360(1)(e), F.A.C.; and
 - (7) Any other similar minor administrative change at the source.
- b. Upon receipt of any such notification, the EPD shall within 60 days correct the permit and provide a corrected copy to the owner.
- c. After first notifying the owner, the EPD shall correct any permit in which it discovers errors of the types listed at Rules 62-210.360(1)(a) and (b), F.A.C., and provide a corrected copy to the owner.
- d. For Title V source permits, other than general permits, a copy of the corrected permit shall be provided to EPA and any approved local air program in the county where the facility or any part of the facility is located.

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[Rule 62-210.360, F.A.C.]

- RR9. Notification of Startup.** The owners or operator of any emissions unit or facility which has a valid air operation permit which has been shut down more than one year, shall notify the EPD in writing of the intent to start up such emissions unit or facility, a minimum of 60 days prior to the intended startup date.
- a. The notification shall include information as to the startup date, anticipated emission rates or pollutants released, changes to processes or control devices which will result in changes to emission rates, and any other conditions which may differ from the valid outstanding operation permit.
 - b. If, due to an emergency, a startup date is not known 60 days prior thereto, the owner shall notify the EPD as soon as possible after the date of such startup is ascertained.

[Rule 62-210.300(5), F.A.C.]

- RR10. Report Submission.** The permittee shall submit all compliance related notifications and reports required of this permit to the Compliance Authority. {See front of permit for address and phone number. }

- RR11. EPA Report Submission.** Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to: Air, Pesticides & Toxics Management Division, United States Environmental Protection Agency, Region 4, Sam Nunn Atlanta Federal Center, 61 Forsyth Street SW, Atlanta, GA 30303-8960. Phone: 404/562-9077.

- RR12. Acid Rain Report Submission.** Acid Rain Program Information shall be submitted, as necessary, to: Department of Environmental Protection, 2600 Blair Stone Road, Mail Station #5510, Tallahassee, Florida 32399-2400. Phone: 850/488-6140. Fax: 850/922-6979.

- RR13. Report Certification.** All reports shall be accompanied by a certification by a responsible official, pursuant to Rule 62-213.420(4), F.A.C. [Rule 62-213.440(1)(b)3.c, F.A.C.]

- RR14. Certification by Responsible Official (RO).** In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information. [Rule 62-213.420(4), F.A.C.]

- RR15. Confidential Information.** Whenever an applicant submits information under a claim of confidentiality pursuant to Section 403.111, F.S., the applicant shall also submit a copy of all such information and claim directly to EPA. Any permittee may claim confidentiality of any data or other information by complying with this procedure. [Rules 62-213.420(2), and 62-213.440(1)(d)6., F.A.C.]

- RR16. Forms and Instructions.** The forms used by the EPD in the Title V source operation program are adopted and incorporated by reference in Rule 62-213.900, F.A.C. The forms are listed by rule number, which is also the form number, and with the subject, title, and effective date. Copies of forms may be obtained by writing to the Department of Environmental Protection, Division of Air Resource Management, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, by contacting the appropriate permitting authority or by accessing the Department's web site at: <http://www.dep.state.fl.us/air/rules/forms.htm>.

- a. Major Air Pollution Source Annual Emissions Fee Form (Effective 10/12/2008).
- b. Statement of Compliance Form (Effective 06/02/2002).
- c. Responsible Official Notification Form (Effective 06/02/2002).

[Rule 62-213.900, F.A.C.: Forms (1), (7) and (8)]

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Unless otherwise specified in the permit, the following testing requirements apply to each emissions unit for which testing is required. The terms “stack” and “duct” are used interchangeably in this appendix.

TR1. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

TR2. 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.]

TR3. Calculation of Emission Rate. For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

TR4. Applicable Test Procedures.

a. *Required Sampling Time.*

- (1) Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
- (2) **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 the EPD to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity

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standard shall be twelve minutes.

- b. *Minimum Sample Volume.* Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.
- c. *Required Flow Rate Range.* For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- d. *Calibration of Sampling Equipment.* Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.

TABLE 297.310-1 CALIBRATION SCHEDULE			
ITEM	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
Liquid in glass thermometer	Annually	ASTM Hg in glass ref. thermometer or equivalent or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calib. liq. in glass	5° F
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5° F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/- 0.001" mean of at least three readings; Max. deviation between readings, 0.004"
Dry Gas Meter and Orifice Meter	1. Full Scale: When received, when 5% change observed, annually	Spirometer or calibrated wet test or dry gas test meter	2%
	2. One Point: Semiannually		
	3. Check after each test series	Comparison check	5%

- e. *Allowed Modification to EPA Method 5.* When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

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

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TR5. 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.]

TR6. Sampling Facilities. Permittees that are required to sample mass emissions from point sources shall install stack sampling ports and provide sampling facilities that meet the requirements of this condition. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must also comply with all applicable Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

- a. *Permanent Test Facilities.* The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.
- b. *Temporary Test Facilities.* The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the EPD elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the EPD and remain on the emissions unit until the test is completed.
- c. *Sampling Ports.*
 - (1) All sampling ports shall have a minimum inside diameter of 3 inches.
 - (2) The ports shall be capable of being sealed when not in use.
 - (3) The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.
 - (4) For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.
 - (5) On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.
- d. *Work Platforms.*
 - (1) Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.
 - (2) On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.
 - (3) On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees

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- around the stack.
- (4) All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toe board, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.
- e. *Access to Work Platform.*
- (1) Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.
- (2) Walkways over free-fall areas shall be equipped with safety rails and toe boards.
- f. *Electrical Power.*
- (1) A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.
- (2) If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.
- g. *Sampling Equipment Support.*
1. A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.
- (a) The bracket shall be a standard 3 inch × 3 inch × one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.
- (b) A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.
- (c) The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.
2. A complete monorail or dual rail arrangement may be substituted for the eyebolt and bracket.
3. When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

[Rule 62-297.310(6), F.A.C.]

TR7. 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) For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.
- (3) 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. Emissions units that are required to conduct

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an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to sub-subparagraph 62-210.300(2)(a)3.b., c., or d., F.A.C., the EPD shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- (a) Did not operate; or
 - (b) In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.
- (4) During each federal fiscal year (October 1 – September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
- (a) Visible emissions, if there is an applicable standard;
 - (b) Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
 - (c) Each NESHAP pollutant, if there is an applicable emission standard.
- (5) An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
- (6) For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup.
- (7) For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to paragraph 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup.
- (8) Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
- (9) The owner or operator shall notify the 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.
- (10) An annual compliance test conducted for visible emissions shall not be required for units exempted from air permitting pursuant to subsection 62-210.300(3), F.A.C.; units determined to be insignificant pursuant to subparagraph 62-213.300(2)(a)1., A.C., or paragraph 62-213.430(6)(b), F.A.C.; or units permitted under the General Permit provisions in paragraph 62-210.300(4)(a) or Rule 62-213.300, F.A.C., unless the general permit specifically requires such testing.
- b. *Special Compliance Tests.* When the 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 Department 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 the EPD.
- c. *Waiver of Compliance Test Requirements.* If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the EPD, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the EPD shall waive the compliance test

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requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of paragraph 62-297.310(7)(b), F.A.C., shall apply.

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

TR8. Test Reports.

- a. The owner or operator of an emissions unit for which a compliance test is required shall file a report with the EPD on the results of each such test.
- b. The required test report shall be filed with the EPD as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- c. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the EPD to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information.
 - (1) The type, location, and designation of the emissions unit tested.
 - (2) The facility at which the emissions unit is located.
 - (3) The owner or operator of the emissions unit.
 - (4) 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.
 - (5) 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.
 - (6) The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
 - (7) A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
 - (8) The date, starting time and duration of each sampling run.
 - (9) The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
 - (10) The number of points sampled and configuration and location of the sampling plane.
 - (11) For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
 - (12) The type, manufacturer and configuration of the sampling equipment used.
 - (13) Data related to the required calibration of the test equipment.
 - (14) Data on the identification, processing and weights of all filters used.
 - (15) Data on the types and amounts of any chemical solutions used.
 - (16) Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
 - (17) The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
 - (18) All measured and calculated data required to be determined by each applicable test procedure for each run.
 - (19) The detailed calculations for one run that relate the collected data to the calculated emission rate.
 - (20) 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.

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(21) A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the EPD or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. 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.]

APPENDIX TV

TITLE V GENERAL CONDITIONS

(Version Dated 11/01/2010)

Operation

- TV1. General Prohibition.** A permitted installation may only be operated, maintained, constructed, expanded or modified in a manner that is consistent with the terms of the permit. [Rule 62-4.030, Florida Administrative Code (F.A.C.)]
- TV2. Validity.** 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 the EPD. [Rule 62-4.160(2), F.A.C.]
- TV3. Proper Operation and Maintenance.** 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. [Rule 62-4.160(6), F.A.C.]
- TV4. Not Federally Enforceable. Health, Safety and Welfare.** To ensure protection of public health, safety, and welfare, any construction, modification, or operation of an installation which may be a source of pollution, shall be in accordance with sound professional engineering practices pursuant to Chapter 471, F.S. [Rule 62-4.050(3), F.A.C.]
- TV5. Continued Operation.** An applicant making timely and complete application for permit, or for permit renewal, shall continue to operate the source under the authority and provisions of any existing valid permit or Florida Electrical Power Plant Siting Certification, and in accordance with applicable requirements of the Acid Rain Program and applicable requirements of the CAIR Program, until the conclusion of proceedings associated with its permit application or until the new permit becomes effective, whichever is later, provided the applicant complies with all the provisions of subparagraphs 62-213.420(1)(b)3., F.A.C. [Rules 62-213.420(1)(b)2., F.A.C.]
- TV6. Changes Without Permit Revision.** Title V sources having a valid permit issued pursuant to Chapter 62-213, F.A.C., may make the following changes without permit revision, provided that sources shall maintain source logs or records to verify periods of operation:
- a. Permitted sources may change among those alternative methods of operation allowed by the source's permit as provided by the terms of the permit;
 - b. A permitted source may implement operating changes, as defined in Rule 62-210.200, F.A.C., after the source submits any forms required by any applicable requirement and provides the EPD and EPA with at least 7 days written notice prior to implementation. The source and the EPD shall attach each notice to the relevant permit;
 - (1) The written notice shall include the date on which the change will occur, and a description of the change within the permitted source, the pollutants emitted and any change in emissions, and any term or condition becoming applicable or no longer applicable as a result of the change;
 - (2) The permit shield described in Rule 62-213.460, F.A.C., shall not apply to such changes;
 - c. Permitted sources may implement changes involving modes of operation only in accordance with Rule 62-213.415, F.A.C.
[Rule 62-213.410, F.A.C.]
- TV7. Circumvention.** No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]

Compliance

- TV8. Compliance with Chapter 403, F.S., and EPD Rules.** Except as provided at Rule 62-213.460, Permit Shield, F.A.C., the issuance of a permit does not relieve any person from complying with the requirements of Chapter 403, F.S., or EPD rules. [Rule 62-4.070(7), F.A.C.]

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- TV9. Compliance with Federal, State and Local Rules.** Except as provided at Rule 62-213.460, F.A.C., issuance of a permit does not relieve the owner or operator of a facility or an emissions unit from complying with any applicable requirements, any emission limiting standards or other requirements of the air pollution rules of the EPD or any other such requirements under federal, state, or local law. [Rule 62-210.300, F.A.C.]
- TV10. Binding and enforceable.** 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 the EPD will review this permit periodically and may initiate enforcement action for any violation of these conditions. [Rule 62-4.160(1), F.A.C.]
- TV11. Timely information.** When requested by the 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 the EPD, such facts or information shall be corrected promptly. [Rule 62-4.160(15), F.A.C.]
- TV12. Halting or reduction of source activity.** It shall not be a defense for a permittee in an enforcement action that maintaining compliance with any permit condition would necessitate halting of or reduction of the source activity. [Rule 62-213.440(1)(d)3., F.A.C.]
- TV13. Final permit action.** Any Title V source shall comply with all the terms and conditions of the existing permit until the EPD has taken final action on any permit renewal or any requested permit revision, except as provided at Rule 62-213.412(2), F.A.C. [Rule 62-213.440(1)(d)4., F.A.C.]
- TV14. Sudden and unforeseeable events beyond the control of the source.** A situation arising from sudden and unforeseeable events beyond the control of the source which causes an exceedance of a technology-based emissions limitation because of unavoidable increases in emissions attributable to the situation and which requires immediate corrective action to restore normal operation, shall be an affirmative defense to an enforcement action in accordance with the provisions and requirements of 40 CFR 70.6(g)(2) and (3), hereby adopted and incorporated by reference. [Rule 62-213.440(1)(d)5., F.A.C.]
- TV15. Permit Shield.** Except as provided in Chapter 62-213, F.A.C., compliance with the terms and conditions of a permit issued pursuant to Chapter 62-213, F.A.C., shall, as of the effective date of the permit, be deemed compliance with any applicable requirements in effect, provided that the source included such applicable requirements in the permit application. Nothing in this condition or in any permit shall alter or affect the ability of EPA or the EPD to deal with an emergency, the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance, or the requirements of the Federal Acid Rain Program or the CAIR Program. [Rule 62-213.460, F.A.C.]
- TV16. Compliance With Federal Rules.** A facility or emissions unit subject to any standard or requirement of 40 CFR, Part 60, 61, 63 or 65, adopted and incorporated by reference at Rule 62-204.800, F.A.C., shall comply with such standard or requirement. Nothing in this chapter shall relieve a facility or emissions unit from complying with such standard or requirement, provided, however, that where a facility or emissions unit is subject to a standard established in Rule 62-296, F.A.C., such standard shall also apply. [Rule 62-296.100(3), F.A.C.]

Permit Procedures

- TV17. Permit Revision Procedures.** The permittee shall revise its permit as required by Rules 62-213.400, 62-213.412, 62-213.420, 62-213.430 & 62-4.080, F.A.C.; and, in addition, the EPD shall revise permits as provided in Rule 62-4.080, F.A.C. & 40 CFR 70.7(f).
- TV18. Permit Renewal.** The permittee shall renew its permit as required by Rules 62-4.090, 62.213.420(1) and 62-213.430(3), F.A.C. Permits being renewed are subject to the same requirements that apply to permit issuance at the time of application for renewal. Permit renewal applications shall contain that information identified in Rules 62-210.900(1) [Application for Air Permit - Long Form], 62-213.420(3) [Required Information], 62-213.420(6) [CAIR Part Form], F.A.C. Unless a Title V source submits a timely and

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complete application for permit renewal in accordance with the requirements this rule, the existing permit shall expire and the source's right to operate shall terminate. For purposes of a permit renewal, a timely application is one that is submitted 225 days before the expiration of a permit that expires on or after June 1, 2009. No Title V permit will be issued for a new term except through the renewal process. [Rules 62-213.420 & 62-213.430, F.A.C.]

TV19. Insignificant Emissions Units or Pollutant-Emitting Activities. The permittee shall identify and evaluate insignificant emissions units and activities as set forth in Rule 62-213.430(6), F.A.C.

TV20. Savings Clause. If any portion of the final permit is invalidated, the remainder of the permit shall remain in effect. [Rule 62-213.440(1)(d)1., F.A.C.]

TV21. Suspension and Revocation.

- a. Permits shall be effective until suspended, revoked, surrendered, or expired and shall be subject to the provisions of Chapter 403, F.S., and rules of the EPD.
- b. Failure to comply with pollution control laws and rules shall be grounds for suspension or revocation.
- c. A permit issued pursuant to Chapter 62-4, F.A.C., shall not become a vested property right in the permittee. The EPD may revoke any permit issued by it if it finds that the permit holder or his agent:
 - (1) Submitted false or inaccurate information in his application or operational reports.
 - (2) Has violated law, EPD orders, rules or permit conditions.
 - (3) Has failed to submit operational reports or other information required by EPD rules.
 - (4) Has refused lawful inspection under Section 403.091, F.S.
- d. No revocation shall become effective except after notice is served by personal services, certified mail, or newspaper notice pursuant to Section 120.60(5), F.S., upon the person or persons named therein and a hearing held if requested within the time specified in the notice. The notice shall specify the provision of the law, or rule alleged to be violated, or the permit condition or EPD order alleged to be violated, and the facts alleged to constitute a violation thereof.

[Rule 62-4.100, F.A.C.]

TV22. Not federally enforceable. Financial Responsibility. The EPD may require an applicant to submit proof of financial responsibility and may require the applicant to post an appropriate bond to guarantee compliance with the law and EPD rules. [Rule 62-4.110, F.A.C.]

TV23. Emissions Unit Reclassification.

- a. Any emissions unit whose operation permit has been revoked as provided for in Chapter 62-4, F.A.C., shall be deemed permanently shut down for purposes of Rule 62-212.500, F.A.C. Any emissions unit whose permit to operate has expired without timely renewal or transfer may be deemed permanently shut down, provided, however, that no such emissions unit shall be deemed permanently shut down if, within 20 days after receipt of written notice from the EPD, the emissions unit owner or operator demonstrates that the permit expiration resulted from inadvertent failure to comply with the requirements of Rule 62-4.090, F.A.C., and that the owner or operator intends to continue the emissions unit in operation, and either submits an application for an air operation permit or complies with permit transfer requirements, if applicable.
- b. If the owner or operator of an emissions unit which is so permanently shut down, applies to the EPD for a permit to reactivate or operate such emissions unit, the emissions unit will be reviewed and permitted as a new emissions unit.

[Rule 62-210.300(6), F.A.C.]

TV24. Transfer of Permits. Per Rule 62-4.160(11), F.A.C., this permit is transferable only upon EPD approval in accordance with Rule 62-4.120, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the EPD. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations occurring prior to the sale or legal transfer of the facility. The permittee shall also comply with the requirements of Rule 62-210.300(7), F.A.C., and use DEP Form No. 62-210.900(7). [Rules 62-4.160(11), 62-4.120, and 62-210.300(7), F.A.C.]

Rights, Title, Liability, and Agreements

TV25. Rights. 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 EPD permit that may be required for other aspects of the total project which are not addressed in this permit. [Rule 62-4.160(3), F.A.C.]

TV26. Title. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does 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. [Rule 62-4.160(4), (F.A.C.)]

TV27. Liability. 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 F.S. and EPD rules, unless specifically authorized by an order from the EPD. [Rule 62-4.160(5), F.A.C.]

TV28. Agreements.

- a. 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:
 - (1) Have access to and copy any records that must be kept under conditions of the permit;
 - (2) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,
 - (3) 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.
- b. 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 the EPD may be used by the 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.
- c. 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.

[Rules 62-4.160(7), (9), and (10), F.A.C.]

Recordkeeping and Emissions Computation

TV29. Permit. The permittee shall keep this permit or a copy thereof at the work site of the permitted activity. [Rule 62-4.160(12), F.A.C.]

TV30. Recordkeeping.

- 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 the 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 five (5) years from the date of the sample, measurement, report, or application unless otherwise specified by EPD rule.
- c. Records of monitoring information shall include:
 - (1) The date, exact place, and time of sampling or measurements, and the operating conditions at the time of sampling or measurement;

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- (2) The person responsible for performing the sampling or measurements;
- (3) The dates the analyses were performed;
- (4) The person and company that performed the analyses;
- (5) The analytical techniques or methods used;
- (6) The results of such analyses.

[Rules 62-4.160(14) and 62-213.440(1)(b)2., F.A.C.]

TV31. Emissions Computation. Pursuant to Rule 62-210.370, F.A.C., the following required methodologies are 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 Rule 62-210.370, F.A.C. Rule 62-210.370, F.A.C., is not intended to establish methodologies for determining compliance with the emission limitations of any air permit.

For any of the purposes specified above, the owner or operator of a facility shall compute emissions in accordance with the requirements set forth in this subsection.

- a. *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.
 - (1) 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 the EPD that an alternative approach is more accurate because the CEMS represents still-emerging technology.
 - (2) 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 the EPD that an alternative approach is more accurate.
 - (3) 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 the EPD that an alternative approach is more accurate.
- b. *Continuous Emissions Monitoring System (CEMS).*
 - (1) An owner or operator may use a CEMS to compute emissions of a pollutant for purposes of this rule provided:
 - (a) The CEMS complies with the applicable certification and quality assurance requirements of 40 CFR Part 60, Appendices B and F, or, for an acid rain unit, the certification and quality assurance requirements of 40 CFR Part 75, all adopted by reference at Rule 62-204.800, F.A.C.; or,
 - (b) The owner or operator demonstrates that the CEMS otherwise represents the most accurate means of computing emissions for purposes of this rule.
 - (2) Stack gas volumetric flow rates used with the CEMS to compute emissions shall be obtained by the most accurate of the following methods as demonstrated by the owner or operator:
 - (a) A calibrated flowmeter that records data on a continuous basis, if available; or
 - (b) The average flow rate of all valid stack tests conducted during 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.

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- (3) The owner or operator may use CEMS data in combination with an appropriate f-factor, heat input data, and any other necessary parameters to compute emissions if such method is demonstrated by the owner or operator to be more accurate than using a stack gas volumetric flow rate as set forth at subparagraph 62-210.370(2)(b)2., F.A.C., above.
- c. *Mass Balance Calculations.*
- (1) 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:
- (a) 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,
- (b) 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.
- (2) 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.
- (3) 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.
- d. *Emission Factors.*
- (1) 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.
- (a) 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.
- (b) 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.
- (c) 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.
- (2) 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.
- e. *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.

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- f. *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.
- g. *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.
- h. *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(1) & (2), F.A.C.]

Responsible Official

TV32. Designation and Update. The permittee shall designate and update a responsible official as required by Rule 62-213.202, F.A.C.

Prohibitions and Restrictions

TV33. Asbestos. This permit does not authorize any demolition or renovation of the facility or its parts or components which involves asbestos removal. This permit does not constitute a waiver of any of the requirements of Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, National Emission Standard for Asbestos, adopted and incorporated by reference in Rule 62-204.800, F.A.C. Compliance with Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, Section 61.145, is required for any asbestos demolition or renovation at the source. [40 CFR 61; Rule 62-204.800, F.A.C.; and, Chapter 62-257, F.A.C.]

TV34. Refrigerant Requirements. Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed at 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or Class II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts B and F, and with Chapter 62-281, F.A.C.

TV35. Open Burning Prohibited. Open burning is prohibited unless performed in accordance with the provisions of Rule 62-296.320(3) or Chapter 62-256, F.A.C.

TV36. Heavy-Duty Vehicle Idling Reduction. The permittee shall only allow idling of heavy-duty diesel engine powered motor vehicles in accordance with the following provisions:

- a. *Applicability.* This rule applies to any heavy-duty diesel engine powered motor vehicle. For the purposes of this rule:
 - (1) Heavy-duty diesel engine powered motor vehicle means a motor vehicle:
 - (a) With a gross vehicle weight rating equal to or greater than 8,500 pounds;
 - (b) Used on roads for the transportation of passengers or freight; and
 - (c) Serving a commercial, governmental, or public purpose.
 - (2) Gross vehicle weight rating means the value specified by the manufacturer as the maximum design loaded weight of a single vehicle.
- b. *Requirement.* Owners or operators of heavy-duty diesel engine powered motor vehicles are prohibited from idling for more than five consecutive minutes. Idling is the continuous operation of a vehicle's main drive engine while the vehicle is stopped.
- c. *Exemptions.* The idling restriction of subsection 62-285.420(2), F.A.C., shall not apply:
 - (1) To idling while stopped for traffic conditions over which the driver has no control, including being stopped for an official traffic control device or signal, in a line of traffic, at a railroad crossing, at a construction zone, or at the direction of law enforcement;
 - (2) To idling of buses 10 minutes prior to passenger loading and when passengers are onboard if needed for passenger comfort;

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- (3) To idling of an armored vehicle in which a person remains inside the vehicle while guarding the contents of the vehicle or while the vehicle is being loaded or unloaded.
- (4) If idling is necessary for a police, fire, ambulance, public safety, military, or other vehicle being used in an emergency or training capacity;
- (5) If idling is necessary to verify that the vehicle is in safe operating condition as required by law and that all equipment is in good working order, either as part of a daily vehicle inspection or as otherwise needed, provided that engine idling is mandatory for such verification;
- (6) If idling is necessary to accomplish work for which the vehicle was designed, other than propulsion, for example: collecting solid waste or recyclable material; controlling cargo temperature; or operating a lift, crane, pump, drill, hoist, mixer, or other auxiliary equipment other than a heater or air conditioner;
- (7) If idling is necessary to operate defrosters, heaters, air conditioners, or other equipment to prevent a safety or health emergency, but not solely for the comfort of the driver;
- (8) To idling while the driver is sleeping or resting in a sleeper berth. This exemption expires at midnight September 30, 2013.

[Rule 62-285.420, F.A.C.]

TABLE H
PERMIT HISTORY

E.U. ID	Description	Permit No.	Effective Date	Expiration Date	Project Type
-001	HMIWI	0950169-007-AV	04/12/2012	04/11/2017	Title V Operation Permit Revision and Renewal
-002	RICE: Fire Pump and Generator	0950169-007-AV	04/12/2012	04/11/2017	Title V Operation Permit Revision and Renewal
-001	HMIWI	0950169-008-AC	02/09/2012	12/31/2014	Modify Air Pollution Control System
-001	HMIWI	0950169-006-AV	06/05/2006	03/30/2011	Renewal
-001	HMIWI	0950169-005-AV	12/26/2001	03/30/2006	Revision
-001	HMIWI	0950169-004-AC	06/29/2001	06/26/2006	Construction Modification
-001	HMIWI	0950169-003-AV	05/07/2001	03/30/2006	Title V Permit
-001	HMIWI	0950169-002			Withdrawn as FESOP was issued
-001	HMIWI	0950169-001-AF	11/27/1996	08/30/2001	FESOP
-001	HMIWI	AO48-201263	04/27/1992	03/30/1997	Operate Permit

STATEMENT OF BASIS

Title V Air Operation Permit Revision and Renewal Permit No. 0950169-007-AV

APPLICANT

The applicant for this project is Stericycle, Inc. The applicant's responsible official and mailing address are: Mr. Kelly Roberts, Environmental Compliance Manager, Stericycle, Inc., Apopka Facility, 254 W. Keene Road, Apopka, FL 32703.

PROJECT DESCRIPTION

The purpose of this permitting project is the revision and renewal of the Title V operation permit for the above referenced facility.

The facility submitted on August 16, 2010 a Title V operation permit application to renew the Title V operation permit expiring March 30, 2011. The applicant applied timely and requested a permit shield during permit processing.

The facility is subject to NSPS 40 CFR Part 60 Subpart Ce, Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators. This NSPS was first promulgated in 1997 and revised in 2001, and as a result FDEP promulgated Rule 62-204.800(9)(d), F.A.C., for HMIWI facilities in Florida. The expiring permit 0950169-006-AV incorporated the requirements of these regulations.

On October 6, 2009, EPA amended Subpart Ce and as a result, FDEP promulgated Rule 62-204.800(9)(g), F.A.C., effective December 30, 2010 to fully implement the amended Subpart Ce standards. Rule 62-204.800(9)(g)10., F.A.C., required the facility to submit a Title V permit revision application by June 1, 2011, to incorporate the amended Subpart Ce standards. The applicant met this rule requirement by submitting a Title V operation permit revision and renewal application on May 27, 2011.

The amended Subpart Ce had an initial compliance date of June 1, 2012, but allowed the facility to request and obtain an extended compliance date. Rule 62-204.800(9)(g)9.d., F.A.C., allowed an extended compliance date no later than June 1, 2014. The facility requested the extended compliance date of June 1, 2014. The facility submitted documentation, including Alternate Schedule Milestones, to justify that request as required by the amended Subpart Ce. The EPD has granted the extension request, and included the Alternate Schedule Milestones in the Compliance Plan in Appendix CP-1. Thus, the facility is subject to Rule 62-204.800(9)(d), F.A.C., prior to the amended Subpart Ce applicability date of June 1, 2014. Beginning June 1, 2014, the facility is subject to Rule 62-204.800(9)(g), F.A.C.

The facility requested one permit incorporating both Rule 62-204.800(9)(d), F.A.C., and Rule 62-204.800(9)(g), F.A.C., in the revision and renewal application submitted May 27, 2011. The EPD complied with this request by issuing the draft permit with Section III Subsection A effective through May 31, 2014, and Section III Subsection B effective beginning June 1, 2014.

The revision and renewal application listed the facility modifications required to meet the amended Subpart Ce emission guidelines, and stated the facility's intention to request a construction permit for the proposed modifications. The facility submitted a construction permit application on September 21, 2011 for those proposed modifications. The facility requested concurrent processing of the construction permit application and the Title V renewal and revision application. The construction permit application resulted in construction permit 0950169-008-AC.

The renewal incorporates changes in Rule 62-204.800(9)(d), F.A.C., since the last Title V Operation permit. The revision incorporates:

1. The revised HMIWI emission standards in Rule 62-204.800(9)(g) that adopts NSPS 40 CFR Part 60 Subpart Ce amended October 6, 2009;

STATEMENT OF BASIS

2. The facility modifications authorized by construction permit 0950169-008-AC.

While open for renewal, the permit format was changed to reflect the latest FDEP templates.

FACILITY DESCRIPTION

Description of facility effective from present to May 31, 2014, for Section III Subsection A.

This facility is a Hospital/Medical/Infectious Waste Incinerator (HMIWI) with an air pollution control system and miscellaneous equipment. The incinerator was constructed in 1991.

The HMIWI is a dual chamber, continuous incinerator. Waste is burned under starved air conditions in the primary chamber, and unburned gases are burned under excess air conditions in the second chamber or afterburner. The afterburner exhausts into a duct with a bypass stack and a quench tower, followed by the air pollution control system. The air pollution control system consists of a dry scrubber followed by a fabric filter. Hydrated lime and activated carbon are injected into the dry scrubber and removed, along with fly ash in the fabric filter (bag house).

The facility includes a diesel powered fire pump, a diesel powered emergency generator and a silo with dust collector for the hydrated lime.

The air pollution control system will be modified as authorized by construction permit 0950169-008-AC to meet the amended Subpart Ce requirements by the June 1, 2014 compliance date. The authorized facility modifications are:

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 NO_x.
2. Install a wet scrubber with an absorber and a demister at the exit of the bag house, to control SO₂ and HCl.

The facility will also install a new induced draft fan.

Description of facility beginning June 1, 2014, for Section III Subsection B.

This facility is a Hospital/Medical/Infectious Waste Incinerator (HMIWI) with an air pollution control system and miscellaneous equipment. The incinerator was constructed in 1991 and modified in 2013-2014.

The HMIWI is a dual chamber, continuous incinerator. Waste is burned under starved air conditions in the primary chamber, and unburned gases are burned under excess air conditions in the second chamber or afterburner. The afterburner is followed by an SNCR system, in which a reagent (ammonia) is injected to reduce NO_x emissions. The SNCR system is followed by a duct with a bypass stack and a quench tower, which is followed by a dry scrubber, followed by a fabric filter. Hydrated lime and activated carbon are injected into the dry scrubber and removed, along with fly ash in the bag house. A wet scrubber, with an absorber and a demister to control SO₂ and HCl emissions, follows the bag house. An induced draft fan exhausts through a stack.

The facility includes a diesel powered fire pump, a diesel powered emergency generator and a silo with dust collector for the hydrated lime.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Title V Air Operation Permit Revision and Renewal issued [Month day, year]

Notice of Intent to Issue Air Permit issued December 28, 2011

Public Notice Published January 13, 2012

PRIMARY REGULATORY REQUIREMENTS

Title III: The facility is not identified as a major source of hazardous air pollutants (HAP).

STATEMENT OF BASIS

Title V: The facility is a Title V major source of air pollution by EPA designation.

PSD: The facility is not identified as a Prevention of Significant Deterioration (PSD) major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility is subject to:

1. 40 CFR Part 60, Subpart A, General Provisions
2. 40 CFR Part 60 Subpart Ce, Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators
3. 40 CFR Part 60 Subpart Ec, Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996
4. 40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

NESHAP: The facility is subject to:

1. 40 CFR Part 63, Subpart A, NESHAP General Provisions
2. 40 CFR Part 63, Subpart A, General Provisions, and 40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

CAIR: The facility is not subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

CAM: Compliance Assurance Monitoring (CAM) does not apply to any of the units at the facility.

PROJECT REVIEW

This project revises and renews permit number 0950169-006-AV that became effective June 5, 2006 and expired March 30, 2011. This project is being processed concurrently with construction permit project 0950169-008-AC.

CONCLUSION

This project is the revision and renewal of Title V air operation permit number 0950169-006-AV. This Title V air operation permit revision and renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210 and 62-213, F.A.C.