North Florida / South Georgia Veterans Health System
Malcom Randall Veterans Affairs Medical Center
Gainesville Division

Facility ID No.: 0010041
Alachua County

Title V Air Operation Permit Revision

Proposed Permit Project No.: 0010041-008-AV

Permitting and Compliance Authority:
Florida Department of Environmental Protection
Northeast District
7825 Baymeadows Way, Suite B-200
Jacksonville, Florida 32056-7590
Telephone: 904-807-3300
Fax: 904-448-4363

Title V Air Operation Permit Revision

Proposed Permit No.: 0010041-008-AV

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Florida Department of Environmental Protection

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Governor

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Permittee:
North Florida / South Georgia Veterans Health System
Gainesville Division

Proposed Permit No.: 0010041-008-AV
Facility ID No.: 0010041
SIC Nos.: 80, 8042
Project: Title V Air Operation Permit Revision

The purpose of this permit is to revise Title V Air Operation Permit, No. 0010041-005-AV and incorporate the terms and conditions of Construction Permit 0010041-007-AC. This facility is located at 1601 Southwest Archer Road, Gainesville, Alachua County, Florida; UTM Coordinates: Zone 17, 369.75 km East and 3279.13 km North; Latitude: 29° 38′ 13″ North and Longitude: 82°20′44″ West.

This Title V Air Operation Permit Revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:
Appendix I-1, List of Insignificant Emissions Units and/or Activities
APPENDIX TV-6, TITLE V CONDITIONS version dated 06/23/06
Appendix A - General Provisions for 40 CFR Part 60
APPENDIX SS-1, STACK SAMPLING FACILITIES version dated 10/07/96
TABLE 297.310-1, CALIBRATION SCHEDULE version dated 10/07/96
FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS
EMISSION AND MONITORING SYSTEM PERFORMANCE REPORT version dated 07/96
Appendix CAM

Effective Date:
Renewal Application Due Date:
Expiration Date:

Proposed

Christopher L. Kirts. P.E.
District Air Program Administrator

YKE: mcl

Section I. Facility Information.

Subsection A. Facility Description.

The North Florida/South Georgia Veterans Health System, Malcom Randall Veterans Affairs Medical Center, Gainesville Division, is a functional hospital that provides a broad range of inpatient and outpatient health care services.

The facility consists of a biological wastes incinerator; three steam generating boilers and four emergency internal combustion engines.

The biological wastes incinerator (manufacturer: Environmental Control Products, Inc., Model 1000TE) burns hospital, medical and infectious waste. The emissions from the incinerator are controlled by a venturi scrubber. The process flow diagram for the unit is as below.

FIGURE 1
PROCESS FLOW DIAGRAM
INCINERATOR WITH NEW WET SCRUBBER SYSTEM
VAMC, GAINESVILLE, FLORIDA

1	PRIMARY CHAMBER, RELINED	10	STACK CAP BY-PASS DAMPER
2	SECONDARY CHAMBER, RELINED	11	DATA ACQUISITION SYSTEM
3	AUTOMATIC WASTE LOADER	12	HIGH-TEMPERATURE BREECHING
4	PRIMARY BURNER	13	SCRUBBER SYSTEM
5	SECONDARY BURNER	14	I.D. FAN
6	PRIMARY AIR FAN	15	LOW-TEMPERATURE BREECHING
7	SECONDARY AIR FAN	16	ASH CONVEYOR
8	CONTROL PANEL	17	ASH CONTAINER
9	HIGH-TEMPERATURE STACK	18	SAMPLING PORTS

Three Keeler 250 Horsepower steam generating boilers, which are generally fired one at a time, are located at the facility. Each of the boilers has a maximum firing rate of 26 MMBtu/hr firing natural gas primarily and No.2 fuel oil as a secondary fuel.

The emergency internal combustion engines are to supply power to varying electrical load for the duration of power interruption.

The information about the diesel internal combustion engines is described as below.

Manufacturer: Cummins	Model: DQKH
Power Rating:	2250 KW or 3251 HP @ 1800 RPM
Total Displacement:	60.2 liters for 16 cylinders
Maximum Fuel Consumption Rate:	150.2 gallons/hour
Maximum Gas Flow:	15705 CFM

Also included in this permit are miscellaneous insignificant emissions units and/or activities.

This facility is a Title V Source by EPA Designation.

Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U. ID No.	Brief Description
-001	No. 1 Keeler 250 hp Boiler
-002	No. 2 Keeler 250 hp Boiler
-003	No. 3 Keeler 250 hp Boiler
-006	Hospital/Medical/Infectious Waste Incinerator
-007	Emergency Stationary Internal Combustion Engine No.1
-008	Emergency Stationary Internal Combustion Engine No.2
-009	Emergency Stationary Internal Combustion Engine No.3
-010	Emergency Stationary Internal Combustion Engine No.4

Subsection C. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:
Table 1-1, Summary of Air Pollutant Standards and Terms
Table 2-1, Summary of Compliance Requirements
Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers
Appendix H-1, Permit History/ID Number Changes
Statement of Basis

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

<u>These documents are on file with permitting authority:</u>
Application for Air Permit – Long Form received February 13, 2008
Information received via email February 26, 2008.
Air Construction Permit No. 0010041-007-AC issued May 09, 2008

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-6, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-6, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}

2. [Not federally enforceable.] General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants, which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]

3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]

4. Prevention of Accidental Releases (Section 112(r) of CAA).
a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
Post Office Box 1515
Lanham-Seabrook, MD 20703-1515
Telephone: 301/429-5018

and,
b. The permittee shall 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]

5. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]

6. [Not federally enforceable.] General Pollutant Emission Limiting Standards. 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 (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

"Nothing was deemed necessary and ordered at this time."
[Rule 62-296.320(1)(a), F.A.C.]

7. When appropriate, any recording, monitoring or reporting requirements that are time-specific shall be in accordance with the effective date of this permit, which is day one.
[Rule 62-213.440, F.A.C.]

8. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.
[Rules 62-213.440(3) and 62-213.900, F.A.C.]

{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-6, TITLE V CONDITIONS.}"

9. 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.

10. Submittals. All reports, tests, notifications or other submittals required by this permit shall be submitted to the Department's Northeast District, Air Section:

Florida Department of Environmental Protection
Northeast District Office, Air Program
7825 Baymeadows Way, Suite B-200
Jacksonville, Florida 32256-7590

Telephone: 904/807-3300
Fax: 904/448-4363

11. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air and EPCRA Enforcement Branch
Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9155, Fax: 404/562-9163

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
001	No.1 Keeler 250 hp Boiler with common stack with HMIWI
002	No.2 Keeler 250 hp Boiler with common stack with HMIWI
003	No.3 Keeler 250 hp Boiler with common stack with HMIWI

Emissions Units 001, 002, and 003 identify (3) dual-fired boilers. Each boiler may fire natural gas primarily and No. 2 fuel oil as a secondary fuel. Maximum heat input of each boiler is 26 MMBtu per hour. Emissions from the three boilers are vented through a common stack with the hospital/medical/infections waste incinerator (Emissions Unit 006). Each of the three boilers began commercial operation on January 1, 1966.

These emissions units are regulated under:

- Rule 296.406, F.A.C. –Fossil Fuel Steam Generators with Less Than 250 Million Btu Per Hour Heat Input
- BACT Determination dated May 13, 1994

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum heat input (operation rate) of each boiler is 26 MMBtu per hour.
[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.406, F.A.C.]

A.2. Methods of Operation. Fuels. The only authorized fuels to be fired in each of these boilers is No. 2 distillate fuel oil and natural gas. Natural gas shall be the primary fuel fired and No. 2 distillate fuel oil the secondary fuel. The sulfur content in the No. 2 distillate fuel oil shall not to exceed 0.25% by weight.
[Rule 62-296.406(3), F.A.C.; BACT Determination dated May 13, 1994; BACT Determination Modification dated September 25, 2007; Construction Permit No. 0010041-006-AC]

A.3. Hours of Operation. The emissions units may operate continuously, i.e., 8,760 hours/year. Each boiler shall be fired one at a time, i.e. not simultaneously.
[Rule 62-210.200(PTE), F.A.C.; Air Construction Permit No. 0010041-006-AC]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting Note: Unless otherwise specified, the averaging times for these conditions are based on the specified averaging time of the applicable test method.}

A.4.a. Visible Emissions. Visible emissions shall not exceed 20 percent opacity, except for one two-minute period per hour during which opacity shall not exceed 40 percent.

Permitting Note: Standard is applicable to each boiler

[Rule 62-296.406(1), F.A.C.; Construction Permit No. 0010041-006-AC]

A.4.b Visible emissions - Soot Blowing and Load Change[1]. Visible emissions shall not exceed 60 percent opacity during the 3-hour in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

[1] A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.

Permitting Note: Standard is applicable to each boiler

[Rule 62-210.700(3), F.A.C.; Construction Permit No. 0010041-006-AC]

A.5.a. Particulate Matter. Particulate matter emissions shall be controlled by firing of natural gas and/or low sulfur content liquid fuel.

Permitting Note: Standard is applicable to each boiler

[Rule 62-296.406(2), F.A.C.; BACT Determination dated May 13, 1994; BACT Determination Modification dated September 25, 2007; Construction Permit No. 0010041-006-AC]

A.5.b. Particulate Matter Emissions- Soot Blowing & Load Change[1]. Particulate Matter emissions shall not exceed an average of 0.3 lb/MMBTU heat input while boiler cleaning (soot blowing) or during a load change. These excess emissions resulting from operation in either of these two modes shall not exceed 3 hours in any 24-hour period. Best operational practices to minimize emissions shall be adhered to and the duration of excess emissions shall be minimized.

[1] A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.

Permitting Note: Standard is applicable to each boiler

[Rule 62-210.700(3), F.A.C.]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.6.a Visible emissions. The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. The test shall be conducted by an observer certified in accordance with the requirements of Rule 62-297.320, F.A.C. – Standards for Persons Engaged in Visible Emissions Observations. A compliance test shall be performed annually, once each federal fiscal year. A test shall not be required, however, if the emissions unit does not burn liquid fuel for a total of more than 400 hours in a federal fiscal year.

Permitting Note: Standard is applicable to each boiler

[Rules 62-213.440 and 62-297.401, F.A.C., Rule 62-297.310(7)(a)4., F.A.C ; FINAL Title V Permit No. 0010041-003-AV, Construction Permit No. 0010041-006-AC]

A.6.b. Visible Emissions– Soot Blowing and Load Change[1]. The test method for visible emissions shall be DEP Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. A compliance test shall be performed annually, once each federal fiscal year.

Permitting Note: Standard is applicable to each boiler

[Rule 62-297.310(7)(a)4.a., F.A.C.]

A.7.a. Particulate Matter. This emissions unit shall be assumed to be in compliance with the Particulate Matter emission limits stated in Condition No. A.5.a., if the unit complies with the terms of that condition and the Visible Emissions limitations stated in Condition No. A.4.a. The permittee shall also conduct a compliance test upon Department request in accordance with the requirements of Condition No. A.9. The test method shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C.

Permitting Note: Standard is applicable to each boiler

[Rule 62-296.406 ,F.A.C.; Rule 62-297.310(7)(a)5.,F.A.C.; Construction Permit No. 0010041-006-AC]

A.7.b. Particulate Matter– Particulate Matter–Soot Blowing[1]. The test method for particulate matter emissions shall be as specified in Condition A.7.a. 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 the fossil fuel steam generator does not burn liquid fuel for more than 400 hours other than during startup.

Permitting Note: Standard is applicable to each boiler

[Rule 62-297.310(7)(a)2., F.A.C.; Construction Permit No. 0010041-006-AC]

A.8. Fuel Oil Sulfur Content. Fuel oil shall not exceed 0.25 percent sulfur content, by weight. The permittee shall maintain records to demonstrate that each shipment of fuel oil has 0.25 percent or less sulfur and that the sulfur content was determined by ASTM methods ASTM D4057-88 and ASTM D129-91, ASTM D2622-94 or ASTM D4294- 90, adopted and incorporated by reference in Rule 62- 297.440(1).

[Rules 62-213.440 and 62-296.406(3), F.A.C.; Construction Permit No. 0010041-006-AC]

A.9. Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a 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 Department.

[Rule 62-297.310(7)(b), F.A.C. ; Construction Permit No. 0010041-006-AC]

Excess Emissions

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

A.10. Excess Emissions – Malfunction. Excess Emissions resulting from malfunction shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed 2 hours in any 24 hour period unless authorized by the Department for longer duration.

[Rule 62-210.700(1), F.A.C.]

A.11. Excess Emissions– Startup and Shutdown. Excess Emissions resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized.

[Rule 62-210.700(2), F.A.C.]

A.12. Excess Emissions – Soot Blowing and Load Change[1]. Excess Emissions resulting from existing fossil-fuel steam generators[2] resulting from boiler cleaning (soot blowing) and load change shall be permitted provided the duration of such excess emissions shall not exceed 3 hours in any 24-hour period and visible emissions shall not exceed the opacity stated in Condition A.4.b., and providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized. Particulate Matter emissions shall not exceed the limitation stated in Condition A.5.b.

[1] A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.

[2] Pursuant to Rule 62-210.200(129), F.A.C. – An existing emissions unit is defined as an emissions unit which was in existence, in operation, or under construction, or had received a permit to begin construction prior to January 18, 1972.

[Rule 62-210.700(3), F.A.C.]

A.13. Excess Emissions- Prohibitions. Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

Recordkeeping Requirements

A.14. SO2 Recordkeeping. The Permittee shall maintain a record of the fuel oil sulfur content analysis results stated in Specific Condition No. A.8. for a period of 5 years.

[Rule 62-4.070, F.A.C.]

A.15. Fuel Oil Firing. The Permittee shall maintain a record of the hours per calendar year that fuel oil is fired in any of the boilers.

[Rule 62-4.070, F.A.C.]

Reporting Requirements

A.16. Excess Emissions- Malfunction. In case of excess emissions resulting from malfunctions, the owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

Common Conditions

A.17. These emissions units are also subject to applicable F.A.C. Test Requirements/ Visible Emissions Observation in Subsection C.

Subsection B. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
006	Hospital/Medical/Infectious Waste Incinerator with high-efficiency scrubber. This emissions unit shares a common stack with (3) boilers

{Permitting note(s): This emissions unit is regulated by NSPS - 40 CFR 60, Subpart Ce, Emissions Guidelines and Compliance Times Hospital/Medical/Infectious Waste Incinerators (HMIWI), adopted and incorporated by reference, subject to provisions, in Rule 62-204.800(7)(d), F.A.C.; and Rule 62-296.401(4), F.A.C., Biological Waste Incinerators. Also, please note that conditions in 40 CFR 60, Subpart Ce, are contained in 40 CFR 60, Subpart Ec; Compliance Assurance Monitoring (CAM) requirements, adopted and incorporated by reference in Rule 62-204.800, F.A.C. are only applicable for hydrochloric acid emissions established in Rule 62-296.401(4), F.A.C. Since the allowable hydrochloric acid emissions in 40 CFR 60, Subpart Ce, are more stringent than the allowable emissions established in this rule, this CAM Plan is only applicable when the allowable hydrochloric acid emissions of 40 CFR 60, Subpart Ce, are exceeded.}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum charging rate shall not exceed 495 pounds per hour.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; FESOP Permit No. 0010041-001-AF]

B.2.a. Methods of Operation- Acceptable Materials. The facility is allowed to burn items and materials that fit within the definition of hospital, medical and infectious waste (HMIW) contained in 40 CFR 60.51c.

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

B.2.b. Methods of Operation- Fuel. The facility is authorized to burn natural gas as an auxiliary fuel at a total maximum heat input rate of 3.5 MMBtu/hr.

[Rules 62-4.160(2), 62-210.200, and 62-213.440(1), F.A.C.; FESOP Permit No. 0010041-001-AF]

B.3. Methods of Operation – Prohibited Materials. 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) hazardous waste identified or listed under the regulations in 40 CFR 261;

(d) ash from incineration of medical/infectious waste, once the incineration process has been completed;
(e) nuclear waste; explosives; sewage sludge; lead acid batteries;
(f) domestic sewage materials identified in40 CFR 261.4(a)(1);
(g) household waste, as defined in 40 CFR 261.4(b)(1);
(h) human corpses, remains, and anatomical parts that are intended for interment or cremation.
(i) Radioactive waste

[Rule 62-4.160(2), F.A.C.; Rule 62-296.401(4)(c)4., F.A.C.; Rule 62-296.401(4)(c)5., F.A.C.; 40 CFR 60.51c]

B.4. Incinerator/Scrubber Operation. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating 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, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

B.5. Incinerator Design Temperature & Residence Time. This emissions unit shall be operated 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. Primary chamber and stack shall not be utilized in calculating this residence time.

[Rule 62-296.401(4)(c)1., F.A.C.]

B.6. Incinerator Air Lock and Loading Systems. Mechanically fed facilities 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.

[Rule 62-296.401(4)(c)2., F.A.C.]

B.7. Incineration. Incineration or ignition of waste shall not begin until the secondary (or last) 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 (or last) combustion chamber temperature requirement shall be maintained until the wastes are completely combusted.

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

B.8. Hours of Operation. The hours of operation for this emissions unit shall not exceed 8760 hours/year.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting Note: Unless otherwise specified, the averaging times for these conditions are based on the specified averaging time of the applicable test method.}

B.9. Particulate Matter. Particulate matter emissions shall not exceed 0.069 g/dscm (0.03 gr/dscf; 7.76 TPY); corrected to 7 percent oxygen (dry basis).

Permitting Note: this limitation is considered to be more stringent than allowable of Rule 62-296.401(4)(b)2.a., F.A.C. of 0.100 grains per dry standard cubic foot of flue gas corrected to 7% oxygen (4.52 TPY).

[40 CFR 60.33e(a); Rule 62-296.401(4)(b)2.a., F.A.C.]

B.10. Carbon Monoxide. Carbon monoxide emissions shall not exceed 40 ppm (2.73 TPY) by volume, corrected to 7 percent oxygen (dry basis).

Permitting Note: this limitation is considered to be more stringent than allowable of Rule 62-296.401(4)(b)5., F.A.C. of 100 ppm by volume (2.29 TPY) corrected to 7 percent oxygen (dry basis) on an hourly average basis.

[40 CFR 60.33e(a); Rule 62-296.401(4)(b)5., F.A.C.]

B.11. Dioxins/Furans. No owner or operator of an affected facility shall cause to be discharged into the atmosphere any gases that contain dioxin/furan total mass emissions that exceed 125 ng/dscm (55 x 10^{-9} grains per dry standard cubic feet; 1.42E-05 TPY) or 2.3 ng/dscm TEQ (Toxic Equivalency Factors) (1.0 x 10^{-9} grains per dry standard cubic feet); corrected to 7 percent oxygen (dry basis). See Condition **B.24.**

[40 CFR 60.33e(a)]

B.12. Hydrogen Chloride. Hydrogen chloride emissions shall not exceed 100 ppm by volume (8.90 TPY) or 7 percent of the potential hydrogen chloride emission concentration (93-percent reduction), corrected to 7 percent oxygen (dry basis), whichever is less stringent.

Permitting Note: this limitation is considered to be more stringent than the limit established in FESOP No. 0010041-001-AF of 4.0 lbs./hr (9.36 TPY).

[40 CFR 60.33e(a); Rule 62-296.401(4)(b)2.b., F.A.C.; FESOP No. 0010041-001-AF]

B.13. Sulfur Dioxide. Sulfur dioxide emissions shall not exceed 55 ppm by volume (8.61 TPY), corrected to 7 percent oxygen (dry basis).

[40 CFR 60.33e(a)]

B.14. Nitrogen Oxides. Nitrogen oxide emissions shall not exceed 250 ppm by volume (29.96 TPY), corrected to 7 percent oxygen (dry basis).

[40 CFR 60.33e(a)]

B.15. Lead. Lead emissions shall not exceed 1.2 mg/dscm (0.52 grains per thousand dry standard cubic feet) (0.13 TPY) or 30 percent of the potential lead emission concentration (70 percent reduction), corrected to 7 percent oxygen (dry basis), whichever is less stringent.

[40 CFR 60.33e(a)]

B.16. Cadmium. Cadmium emissions shall not exceed 0.16 mg/dscm (0.07 grains per thousand dry standard cubic feet) (0.02 TPY) or 35 percent of the potential cadmium emission concentration (65 percent reduction), corrected to 7 percent oxygen (dry basis), whichever is less stringent.

[40 CFR 60.33e(a)]

B.17. Mercury. Mercury emissions shall not exceed 0.55 mg/dscm (0.24 grains per thousand dry standard cubic feet) (0.06 TPY) or 15 percent of the potential mercury emission concentration (85 percent reduction), corrected to 7 percent oxygen (dry basis), whichever is less stringent.

[40 CFR 60.33e(a)]

B.18. Pollutant Emission Standards. The emission limits under Conditions B.9. through B.17. shall apply at all times except during periods of startup, shutdown, or malfunction, provided that no hospital waste or medical/infectious waste is charged to the affected facility during startup, shutdown, or malfunction.

[40 CFR 60.56c(a)]

B.19.a. Visible Emissions**.** Visible emissions shall not exceed 10 percent opacity (6-minute block average).

[40 CFR 60.33e(c)]

B.19.b. Visible Emissions. Visible emissions shall not exceed five percent (5%) opacity, six (6) minute average, except that visible emissions not exceeding fifteen percent (15%) opacity shall be allowed for up to six (6) minutes in any one (1) hour period.

[Rule 62-296.401(4)(b)1., F.A.C.]

B.19.c. Visible Emissions. The opacity standards set forth in Condition B.19.a. (40 CFR Part 60) shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard (40 CFR 60 Subpart Ce).

[40 CFR 60.11(c)]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

B.20. Performance Testing Conditions. Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

Permitting Note: Shutdown and Malfunction are defined within 40 CFR 60 Ce/Ec and stated in Subsection D. Startup is defined in the General Provisions of 40 CFR 60 Subpart A

[40 CFR 60.8(c)]

B.21. Pollutant Concentration Percent Oxygen Correction. 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.

[40 CFR 60.56c(b)(5)]

B.22. Particulate Matter & Opacity. The procedures and test methods specified in paragraphs (1) through (9) shall be used for determining compliance with the emission limits for particulate matter and opacity.

(1) The EPA Reference Method 1 shall be used to select the sampling location and number of traverse points.

(2) The EPA Reference Method 5 or 29 shall be used to measure the particulate matter emissions.

(3) The EPA Reference Method 9 may be used to measure stack opacity

(4) EPA Reference Method 3 or 3A shall be used for gas analysis, including measurement of oxygen concentration. EPA Reference Method 3 or 3A shall be used simultaneously with each reference method.

(5) The minimum sample time shall be 1 hour per test run.

(6) The owner or operator of an affected facility shall conduct an initial performance test for particulate matter emissions and opacity as required under 40 CFR 60.8. The use of the bypass stack during a performance test shall invalidate the performance test.

(7) As specified under 40 CFR 60.8, all performance tests shall consist of three runs conducted under representative operating conditions. The average of the particulate matter emission concentrations from the three test runs is used to determine compliance.

(8) Following the date that the initial performance test for opacity is completed or is required to be completed under 40 CFR 60.8, the owner or operator of an affected facility shall conduct a performance test for opacity on an annual basis (no more than 12 months following the previous performance test) using the test method specified in paragraph (3).

(9) Following the date that the initial performance test for particulate matter is completed, a performance test for particulate matter shall be conducted on an annual basis (no more than 12 months following the previous performance test) using the test method specified in paragraph (2). If all three performance tests over a 3-year period indicate compliance with the emission limit for PM, 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 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 emission limit for PM, 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 emission 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 emission limit. The use of the bypass stack during a performance test shall invalidate the performance test.

[40 CFR 60.37c ; 40 CFR 60.56c; Rule 62-296.401(4)(d)1., 3., 4., F.A.C.; Rule 62-296.401(4)(e)1.a., F.A.C.; Rule 62-296.401(4)(e)1.b., F.A.C.]

B.23. Carbon Monoxide. The procedures and test methods specified in paragraphs (1) through (7) shall be used to determine compliance with limits for carbon monoxide emissions.

(1) The EPA Reference Method 1 shall be used to select the sampling location and number of traverse points.

(2) EPA Reference Method 3 or 3A shall be used for gas analysis, including measurement of oxygen concentration. EPA Reference Method 3 or 3A shall be used simultaneously with each reference method.

(3) EPA Reference Method 10 or 10B shall be used to measure the CO emissions.

(4) The minimum sample time shall be 1 hour per test run.

(5) As specified under 40 CFR 60.8, all performance tests shall consist of three runs conducted under representative operating conditions. The average of the carbon monoxide emission concentrations from the three tests runs is used to determine compliance.

(6) The owner or operator of an affected facility shall conduct an initial performance test for carbon monoxide emissions as required under 40 CFR 60.8. The use of the bypass stack during a performance test shall invalidate the performance test.

(7) Following the date that the initial performance test for carbon monoxide is completed or is required to be completed under 40 CFR 60.8 for an affected facility, the owner or operator shall conduct a performance test for carbon monoxide on an annual basis (no more than 12 months following the previous performance test) using the test method specified in paragraph (3). If all three performance tests over a 3-year period indicate compliance with the emission limit for carbon monoxide, the owner or operator may forego a performance test for that pollutant for the subsequent 2 years. At a minimum, a performance test for carbon monoxide 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 emission limit for CO, 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 emission 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 emission limit. The use of the bypass stack during a performance test shall invalidate the performance test.

[40 CFR 60.37c ; 40 CFR 60.56c; Rule 62-296.401(4)(d) 3., 4., F.A.C.]

B.24. Dioxin/Furan. The procedures and test methods specified in paragraphs (1) through (6) shall be used for determining compliance with the emission limits for dioxin/furan.

(1) The EPA Reference Method 1 shall be used to select the sampling location and number of traverse points.

(2) EPA Reference Method 3 or 3A shall be used for gas analysis, including measurement of oxygen concentration. EPA Reference Method 3 or 3A shall be used simultaneously with each reference method.

(3) A performance test for dioxin/furan emissions shall be conducted on a 5-year basis, prior to operation permit renewal. The use of the bypass stack during a performance test shall invalidate the performance test. The Department will retain the authority to require a special compliance test pursuant to Rule 62-297.310(7)(b), F.A.C., it has reason to believe that exceedances of the dioxin/furan emissions limiting standard is occurring.

(4) As specified under 40 CFR 60.8, all performance tests shall consist of three runs conducted under representative operating conditions. The average of the dioxin/furan emission concentrations from the three test runs is used to determine compliance.

(5) EPA Reference Method 23 shall be used to measure total dioxin/furan emissions. The minimum sample time shall be 4 hours per test run. If the affected facility has selected the toxic equivalency standards for dioxin/furans, under Condition B.11., 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 (5)(i), multiply the congener concentration by its corresponding toxic equivalency factor specified in following table:

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

(iii) Sum the products calculated in accordance with paragraph (5)(ii) to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

[40 CFR 60.37c ; 40 CFR 60.56c]

B.25. Lead, Cadmium, & Mercury. The procedures and test methods specified in paragraphs (1) through (6) shall be used to determine compliance with the emission limits for lead, cadmium, and mercury.

(1) The EPA Reference Method 1 shall be used to select the sampling location and number of traverse points.

(2) EPA Reference Method 3 or 3A shall be used for gas analysis, including measurement of oxygen concentration. EPA Reference Method 3 or 3A shall be used simultaneously with each reference method.

(3) EPA Reference Method 29 shall be used to measure Lead, Cadmium, and Mercury emissions. If the affected facility has selected the percentage reduction standards for metals under Conditions B.15., B.16., and B.17., the percentage reduction in emissions ($\%R_{metal}$) is computed using the following formula:

$$(\%R_{metal}) = \left(\frac{E_i - E_o}{E_i}\right) \times 100$$

Where:

$\%R_{metal}$ = percentage reduction of metal emission (Pb, Cd, or Hg) achieved;
E_i = metal emission concentration (Pb, Cd, or Hg) measured at the control device inlet, corrected to 7 percent oxygen (dry basis); and
E_o = metal emission concentration (Pb, Cd, or Hg) measured at the control device outlet, corrected to 7 percent oxygen (dry basis).

(4) The minimum sample time shall be 1 hour per test run.

(5) As specified under 40 CFR 60.8, all performance tests shall consist of three runs conducted under representative operating conditions. The average of the cadmium, lead or mercury emission concentrations from the three test runs is used to determine compliance.

(6) A performance test for lead, cadmium, and mercury emissions shall be conducted on a 5-year basis, prior to operation permit renewal. The use of the bypass stack during a performance test shall invalidate the performance test. The Department will retain the authority to require a special compliance test pursuant to Rule 62-297.310(7)(b), F.A.C., it has reason to believe that exceedances of the for lead, cadmium, and mercury emissions limiting standard is occurring.

[40 CFR 60.37c ; 40 CFR 60.56c]

B.26. Hydrogen Chloride. The procedures and test methods specified in paragraphs (1) through (7) shall be used to determine compliance with limits for hydrogen chloride emissions.

(1) The EPA Reference Method 1 shall be used to select the sampling location and number of traverse points.

(2) EPA Reference Method 3 or 3A shall be used for gas analysis, including measurement of oxygen concentration. EPA Reference Method 3 or 3A shall be used simultaneously with each reference method.

(3) EPA Reference Method 26 shall be used to measure HCl emissions. If the affected facility has selected the percentage reduction standards for HCl under Condition B.12., the percentage reduction in HCl emissions ($\%R_{HCl}$) is computed using the following formula:

$$\left(\%R_{HCl}\right) = \left(\frac{E_i - E_o}{E_i}\right) \times 100$$

Where:

$\%R_{HCl}$ = percentage reduction of HCl emissions achieved;
E_i = HCl emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis); and
E_o = HCl emission concentration measured at the control device outlet, corrected to 7 percent oxygen (dry basis).

(4) The minimum sample time shall be 1 hour per test run.

(5) As specified under 40 CFR 60.8, all performance tests shall consist of three runs conducted under representative operating conditions. The average of the hydrogen chloride emission concentrations from the three tests runs is used to determine compliance.

(6) The owner or operator of an affected facility shall conduct an initial performance test for hydrogen chloride emissions as required under 40 CFR 60.8. The use of the bypass stack during a performance test shall invalidate the performance test.

(7) Following the date that the initial performance test for hydrogen chloride is completed, a performance test for hydrogen chloride shall be conducted on an annual basis (no more than 12 months following the previous performance test) using the test method specified in paragraph (3). If all three performance tests over a 3-year period indicate compliance with the emission limit for 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 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 emission limit for 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 emission 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 emission limit. The use of the bypass stack during a performance test shall invalidate the performance test.

[40 CFR 60.37c ; 40 CFR 60.56c; Rule 62-296.401(4)(d)5., F.A.C.; Rule 62-296.401(4)(e)1.b., F.A.C.]

B.27. Sulfur Dioxide. The procedures and test methods specified in paragraphs (1) through (3) shall be used to determine compliance with limits for sulfur dioxide emissions.

(1) The test methods for sulfur dioxide emissions shall be EPA Methods 6 or 6C, incorporated by reference in Chapter 62-297, F.A.C. A performance test for sulfur dioxide emissions shall be conducted on a 5-year basis, prior to operation permit renewal. The Department will retain the authority to require a special compliance test pursuant to Rule 62-297.310(7)(b), F.A.C., it has reason to believe that exceedances of the sulfur dioxide emissions limiting standard are occurring.

(2) As specified under 40 CFR 60.8, all performance tests shall consist of three runs conducted under representative operating conditions. The average of the sulfur dioxide emission concentrations from the three test runs is used to determine compliance.

[Rule 62-297.310(7)(a)3., F.A.C.]

B.28. Nitrogen Oxides. The procedures and test methods specified in paragraphs (1) through (3) shall be used to determine compliance with nitrogen oxides emission limits.

(1) The test method for NO_x emissions shall be EPA Method 7 or 7E.

(2) A performance test for NO_x emissions shall be conducted on a 5-year basis, prior to operation permit renewal. The use of the bypass stack during a performance test shall invalidate the performance test. The Department will retain the authority to require a special compliance test pursuant to Rule 62-297.310(7)(b), F.A.C., it has reason to believe that exceedances of the NO_x emissions limiting standard is occurring.

(3) As specified under 40 CFR 60.8, all performance tests shall consist of three runs conducted under representative operating conditions. The average of the NO_x emission concentrations from the three test runs is used to determine compliance.

[Rule 62-297.310(7)(a)3., F.A.C]

Continuous Monitoring Requirements

B.29.a. Incinerator Combustion Chamber Exit Temperature. A continuous monitoring device shall be installed, operated, and maintained to record the secondary (or last) combustion chamber exit temperature.

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

B.29.b. Incinerator Combustion Chamber Exit Temperature. A continuous monitoring device shall be installed, calibrated to manufacturers' specifications, maintained, and operated to monitor the minimum secondary chamber temperature. The continuous monitoring device shall measure and record the temperature value at the frequency stated in Table OP-1 at all times except during periods of startup, shutdown, and malfunction.

Permitting Note: Minimum Secondary Chamber Temperature is defined within 40 CFR 60 Ce/Ec and stated in Subsection D.

[40 CFR 60.37e(c); 40 CFR 60.57c(a)]

B.30. Continuous Monitoring Devices. Continuous monitoring devices shall be installed, calibrated to manufacturers' specifications, maintained, and operated to monitor the applicable maximum and minimum operating parameters stated below (and listed in Table OP-1). These devices shall measure and record values for these operating parameters at the frequencies stated in Table OP-1 at all times except during periods of startup and shutdown.

- Maximum charge rate
- Maximum flue gas temperature
- Minimum pressure drop across the wet scrubber
- Minimum scrubber liquor flow rate
- Minimum scrubber liquor pH

The minimum/maximum operating parameters based on performance testing results are as follows:

- The maximum charge rate shall be 480.4 lbs/hr
- The maximum flue gas temperature shall be 131.2 °F
- The minimum pressure drop across the wet scrubber shall be 35.1 in H_2O
- The minimum scrubber liquor flow rate shall be 27.0 gpm
- The minimum scrubber liquor pH shall be 6.92 s.u.

Permitting Note: These terms and how to determine the values are defined within 40 CFR 60 Ce/Ec and stated in Subsection D.

[40 CFR 60.37e(c); 40 CFR 60.57c(a); 2003 & 2005 Performance Tests, Rule 62-297.310(2), F.A.C.]

B.31. Bypass Stack Usage. A continuous monitoring device shall be installed, calibrated to manufacturers' specifications, maintained, and operated to measure the use of the bypass stack including date, time, and duration.

Permitting Note: This term is defined within 40 CFR 60 Ce/Ec and stated in Subsection D.

[40 CFR 60.37e(c); 40 CFR 60.57c(b)]

B.32. Continuous Monitoring Data. Monitoring data shall be obtained at all times during operation of the incinerator except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for 75 percent of the operating hours per day and for 90 percent of the operating days per calendar quarter that the incinerator is combusting hospital waste and/or medical/infectious waste.

Permitting Note: These terms are defined within 40 CFR 60 Ce/Ec and stated in Subsection D.

[40 CFR 60.37e(c); 40 CFR 60.57c(d)]

B.33. Particulate Matter Emission Limit Violation. Except as provided in condition B.38., operation of the incinerator above the maximum charge rate and below the minimum pressure drop across the wet scrubber (each measured on a 3-hour rolling average) simultaneously shall constitute a violation of the PM emission limit.

Permitting Note: These terms are defined within 40 CFR 60 Ce/Ec and stated in Subsection D.

[40 CFR 60.37e(a); 40 CFR 60.56c(f)(1)]

B.34. Carbon Monoxide Emission Limit Violation. Except as provided condition B.38., operation of the incinerator 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.

Permitting Note: These terms are defined within 40 CFR 60 Ce/Ec and stated in Subsection D.

[40 CFR 60.37e(a); 40 CFR 60.56c(f)(2)]

B.35. Dioxin/Furan Emission Limit Violation. Except as provided condition B.38., operation of the incinerator 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.

Permitting Note: These terms are defined within 40 CFR 60 Ce/Ec and stated in Subsection D.

[40 CFR 60.37e(a); 40 CFR 60.56c(f)(3)]

B.36. Hydrogen Chloride Emission Limit Violation. Except as provided condition B.38., operation of the incinerator 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.

Permitting Note: These terms are defined within 40 CFR 60 Ce/Ec and stated in Subsection D.

[40 CFR 60.37e(a); 40 CFR 60.56c(f)(4)]

B.36. Mercury Emission Limit Violation. Except as provided in condition B.38., operation of the incinerator 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 Mercury emission limit.

Permitting Note: These terms are defined within 40 CFR 60 Ce/Ec and stated in Subsection D.

[40 CFR 60.37e(a); 40 CFR 60.56c(f)(4)]

B.37. Particulate Matter, Dioxin/Furan, Hydrogen Chloride, Lead, Cadmium, and Mercury Emission Limits Violations. Except during startup, shutdown, or malfunction, use of the bypass stack shall constitute a violation of the PM, Dioxin/Furan, HCl, Lead, Cadmium and Mercury emission limits.

Permitting Note: These terms are defined within 40 CFR 60 Ce/Ec and stated in Subsection D.

[40 CFR 60.37e(a); 40 CFR 60.56c(f)(5)]

B.38. Operating Parameter Violation – Performance Retest. A repeat performance test may be conducted within 30 days of violation of applicable operating parameter(s) to demonstrate that the incinerator is not in violation of the applicable emission limit(s). Repeat performance tests conducted pursuant to this Condition shall be conducted using the identical operating parameters that indicated a violation under either Conditions B.33., B.34., B.35., B.36., or B.37.

[40 CFR 60.37e(a) ; 40 CFR 60.56c(h)]

B.39. Performance Retest. The owner or operator may conduct a repeat performance test at any time to establish new values for the operating parameters (required in Conditions B.29.b., B.30., B.31). The Department (Administrator) may request a repeat performance test at any time.

[40 CFR 60.37e(a) and 40 CFR 60.56c(j)]

Compliance Assurance Monitoring (CAM) Requirements

B.40. This emission unit is subject to the Compliance Assurance Monitoring (CAM) requirements contained in the attached Appendix CAM. The CAM requirements are only applicable for hydrochloric acid emissions established in Rule 62-296.401(4), F.A.C., when the allowable hydrochloric acid emissions of 40 CFR 60, Subpart Ce, are exceeded. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require testing pursuant to Rule 62-297.310(7)(b), F.A.C.).

[40 CFR 64; Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

Excess Emissions

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

B.41. Excess Emissions – Startup, Shutdown, Malfunction. Excess Emissions due to startup, shutdown, or malfunction is conditionally allowed for up to 2 hours in any 24-hour period unless specifically authorized by the Department for longer duration. The permittee shall follow best operational practices to minimize emissions.

[Rule 62-210.700(1), F.A.C.]

B.42. Excess Emissions – Prohibitions. Excess Emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

Waste Management

B.43. 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 paper, cardboard, plastics, glass, battery, or metal recycling; or 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 emission 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 60.17(l)) shall be considered in the development of the waste management plan.

[40 CFR 60.35e; 40 CFR 60.55c]

Operator Training and Qualification

B.44. 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) as follows:

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

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

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

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

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

(iv) Combustion controls and monitoring;

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

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

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

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

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

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

(xi) Work safety procedures;

(xii) Pre-startup inspections; and

(xiii) Recordkeeping requirements.

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

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

(d) Qualification shall be obtained by:

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

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

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

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

(1) Update of regulations;

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

(3) Inspection and maintenance;

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

(5) Discussion of operating problems encountered by attendees.

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

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

(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).

(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) on an annual basis from November 15, 2001, with each HMIWI operator (defined in 40 CFR 60.51c).

Permitting Note: The initial completion date was twelve (12) months after the approval of the State Plan (approved on November 15, 2000), or the date prior to the day when the person assumes responsibilities affecting hospital/medical/infectious waste incinerator unit operation

(j) The information listed in paragraph (h) 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.

[40 CFR 60.34e; 40 CFR 60.39e(e); 40 CFR 60.53c; Rule 62-296.401(4)(c)6., F.A.C.]

Recordkeeping and Reporting Requirements

B.45. Standards for Reporting and Recordkeeping.

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

(1) Calendar date of each record;

(2) Records of the following data:

(i) N/A – CEMS not used for Pollutants of Opacity;

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

(iii) N/A -Fabric filter not control device;

(iv) N/A – Fabric Filter/sorbents not utilized as control device;

(v) N/A – Fabric Filter/sorbents not utilized as control device;

(vi) N/A – Fabric Filter/sorbents not utilized as control device;

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

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

(ix) N/A - Horsepower or amperage not monitored by facility;

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

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

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

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

(xiv) N/A – Alternate control device not utilized.

(3) Identification of calendar days for which data on emission rates or operating parameters specified under paragraph (a)(2) of this Condition 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 (a)(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 emission limits and/or to establish operating parameters, as applicable.

(7) Records showing the names of HMIWI operators who have completed review of the information in Condition B.44.(h) as required by Condition B.44.(i), including the date of the initial review and all subsequent annual reviews;

(8) 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;

(9) Records showing the names of the HMIWI operators who have met the criteria for qualification under Condition B.44. and the dates of their qualification; and

(10) Records of calibration of any monitoring devices as required under Conditions B.30., and B.31.

(b) The owner or operator of an affected facility shall submit the information specified in paragraphs (b)(1) through (b)(3) 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 Conditions B.21. through B.26. (40 CFR 60.56c(b)(1) through (b)(12)), as applicable.

(2) The values for the site-specific operating parameters established pursuant to Condition B.29.b., B.30., and B.31. (40 CFR 60.56c(d)) as applicable.

(3) The waste management plan as specified in Condition B.43. (40 CFR 60.55c).

(c) An annual report shall be submitted 1 year following the submission of the information in paragraph (b) of this Condition and subsequent reports shall be submitted semiannually. The annual report shall include the information specified in paragraphs (c)(1) through (c)(8) of this Condition. All reports shall be signed by the facilities manager.

(1) The values for the site-specific operating parameters established pursuant Condition B.29.b., B.30., and B.31. (40 CFR 60.56c(d)) 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 Condition B.29.b., B.30., and B.31. (40 CFR 60.56c(d)) as applicable.

(3) The highest maximum operating parameter and the lowest minimum operating parameter, as applicable for each operating parameter recorded pursuant to Condition B.29.b., B.30., and B.31. (40 CFR 60.56c(d)) as applicable for the calendar year preceding the year being reported, in order to provide the Department (Administrator) with a summary of the performance of the incinerator over a 2-year period.

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

(5) Any information recorded under paragraphs (a)(3) through (a)(5) of this Condition for the calendar year preceding the year being reported, in order to provide the Department (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 (a)(3) through (a)(5) of this Condition 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.

(d) The owner or operator of an affected facility shall submit semiannual reports containing any information recorded under paragraphs (a)(3) through (a)(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 (b) 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.

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

[40 CFR 60.58c]

B.46. Startup, Shutdown, Malfunction. The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 CFR 60.7(b)]

B.47. Continuous Monitoring Performance Report. Each owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

[40 CFR 60.7(c)(1), (2), (3), and (4)]

B.48. Summary Report. The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

{See attached Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance}

[40 CFR 60.7(d)(1) and (2)]

B.48. Excess Emissions – Malfunction. In case of excess emissions resulting from malfunctions, the owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

40 CFR Part 63, Subpart A, General Provisions

B.49. This emissions unit is subject to the requirements of 40 CFR Part 63, Subpart A, General Provisions.

Common Conditions

B.50. This emissions unit is also subject to the definitions of 40 CFR 60 Subpart Ce/Ec as stated in Subsection D.

B.51. This emissions unit is also subject to applicable F.A.C. Test Requirements/Visible Emission Observation in Subsection C.

Subsection C. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
007	Emergency Stationary Internal Combustion Engine No.1
008	Emergency Stationary Internal Combustion Engine No.2
009	Emergency Stationary Internal Combustion Engine No.3
010	Emergency Stationary Internal Combustion Engine No.4

The units are subject to the following regulations:

- NSPS, Subpart IIII--Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

The following specific conditions apply to the emissions unit(s) listed above:

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

C.1. Hours of Operation: The hours of operation are restricted to 500 hours per year for each unit.
[Rules 62-4.160(2), 62-210.200(PTE), F.A.C., and Permit No. 0010041-007-AC]

C.2. Maximum Operating Rate: The maximum diesel fuel consumption rate is 150.2 gallons/hour for each unit.
[Rules 62-4.160(2), 62-210.200(PTE), F.A.C.]

EMISSIONS LIMITATIONS AND WORK PRACTICE STANDARDS

C.3. Emissions Limits: The units are subject to the emissions limit as stated in the table below.

Pollutant	Emissions Limit in g/KW-hr (g/HP-hr)	Rule
HC	1.3 (1.0)	40 CFR 60.4205 (b) and Table 1 to Subpart IIII of NSPS
NOx	9.2 (6.9)	
CO	11.4 (8.5)	
PM	0.54 (0.40)	

C.4. Operation & Maintainence: Owners and operators shall operate and maintain the units 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.
[40 CFR 60.4206]

C.5. Fuel Requirements: The owner or operator shall comply with the following fuel requirements.

a. Beginning October 1, 2007, owners and operators shall use diesel fuel that meets the following per-gallon standards:
   i. Sulfur Content. 500 parts per million (ppm) maximum.
   ii. Cetane index or aromatic content, as follows:

      A minimum cetane index of 40; or
      A maximum aromatic content of 35 volume percent.

b. Beginning October 1, 2010, owners and operators shall use diesel fuel that meets the meets the following per-gallon standards:
   i. Sulfur Content. 15 ppm maximum for Non Road (NR) diesel fuel. 500 ppm maximum for Locomotive and Marine (LM) diesel fuel.
   ii. Cetane index or aromatic content, as follows:

      A minimum cetane index of 40; or
      A maximum aromatic content of 35 volume percentage.

[40 CFR 60.4207 (a) & (b), 40 CFR 80.510 (a) & (b)]

C.6. Monitoring Requirements: The owner or operator shall comply with the following monitoring requirements.

a. The owner or operator shall install a non-resettable hour meter prior to startup of the engine.
b. If the engine is equipped with a diesel particulate filter to comply with the emission standards, 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.

[40 CFR 60.4209]

C.7. 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. 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 indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited.
[40 CFR 60.4211 (f)]

COMPLIANCE DEMONSTRATION AND TESTING REQUIREMENTS

C.8. The owner or operator shall 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. The owner or operator shall also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to the units.
[40 CFR 60.4211 (a)]

C.9. Compliance Certification: The owner or operator shall comply by purchasing an engine certified to the emission standards as described by specific condition No.3. The engine must be installed and configured according to the manufacturer's specifications.
[40 CFR 60.4211 (c)]

C.10. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a 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 Department.
[Rule 62-297.310(7)(b), F.A.C.]

C.11. Test Method: The owner or operator shall conduct the performance tests according to procedures as described below if special compliance tests are requested by the Department pursuant to specific condition No.C.10.

(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:

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

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 40 CFR 60.4213 of this subpart, as appropriate.
[40 CFR 60.4212]

NOTIFICATION, REPORTING AND RECORDKEEPING REQUIREMENTS

C.12. Recording Keeping – Hours of Operation: The owner shall record the time of operation of the engine and the reason the engine was in operation during that time.
[40 CFR 60.4214 (b)]

C.13. Recordkeeping – PM Filter: If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator shall 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.
[40 CFR 60.4214 (c)]

C.14. Recordkeeping – Fuel: The owner or operator shall keep record of fuel oil analysis for each batch of diesel fuel purchased. The owner or operator shall also keep record of fuel usage.
[Rule 62-4.070 (2), F.A.C.]

Subsection D. Common Conditions – F.A.C. Test Requirements/ VE Observation Standards

E.U.	Brief Description

ID No.	
001	No.1 Keeler 250 hp Boiler
002	No.2 Keeler 250 hp Boiler
003	No.3 Keeler 250 hp Boiler
006	Hospital/Medical/Infectious Waste Incinerator
007	Emergency Stationary Internal Combustion Engine No.1
008	Emergency Stationary Internal Combustion Engine No.2
009	Emergency Stationary Internal Combustion Engine No.3
010	Emergency Stationary Internal Combustion Engine No.4

The following specific conditions may apply to the emissions unit(s) listed above:

{Permitting Note: The following conditions are placed here as a convenience and to avoid duplication. See specific conditions in Subsections listed above for applicability.}

62-297.310 General Compliance Test Requirements.
The focal point of a compliance test is the stack or duct which vents process and/or combustion gases and air pollutants from an emissions unit into the ambient air.

(1) 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.

(2) Operating Rate During Testing. Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operating at permitted capacity as defined below. 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.

(a) Combustion Turbines. (Reserved)

(b) All Other Sources. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit.

(3) Calculation of Emission Rate. 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.

(4) 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 Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, 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.

(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.

TABLE 297.310-1
CALIBRATION SCHEDULE

ITEM	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
Liquid in glass	Annually	ASTM Hg in glass	+/-2%

thermometer		ref. thermometer or equivalent, or thermometric points	
Bimetallic thermometer	Quarterly	Calib. liq. in glass thermometer	5 degrees F
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5 degrees 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 Max. deviation between readings	Micrometer	+/-0.001" men of at least three readings .004"
Dry Gas Meter and Orifice Meter	1. Full Scale: When received, When 5% change observed, Annually 2. One Point: Semiannually 3. Check after each test series	Spirometer or calibrated wet test or dry gas test meter Comparison check	2% 5%

(5) 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.

(6) Required Stack Sampling Facilities. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any 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 Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department 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 around the stack.

4. All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toeboard, 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 toeboards.

(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 x 3 inch x 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 dualrail 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.

(7) 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 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 Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department 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 Rule 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 Department, 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 Rule 62-210.300(3), F.A.C.; units determined to be insignificant pursuant to Rule 62-213.300(2)(a)1., F.A.C., or Rule 62-213.430(6)(b), F.A.C.; or units permitted under the General Permit provisions in Rule 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 Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control

equipment) to believe that any applicable emission standard contained in a 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 Department.

(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 Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of 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 Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

(8) Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department 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 Department 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.
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 Department 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.

Specific Authority: 403.061, FS.
Law Implemented: 403.031, 403.061, 403.087, FS.
History: Formerly 17-2.700(1)(b); Formerly 17-297.310; Amended 11-23-94, 3-13-96, 10-28-97, 3-2-99.

62-297.320 Standards for Persons Engaged in Visible Emissions Observations.
(1) Training and Certification Required. All persons engaged in determining the opacity of visible emissions in Florida shall attend training and be certified by a training provider in accordance with the procedures and requirements set forth below.
(a) Certification shall consist of satisfactory attendance and completion of a classroom lecture and a field qualification. For certification purposes, the classroom lecture and field qualification are separate and independent requirements.
(b) Attendance at the classroom lecture is required no less frequently than every three years. Successful completion of the field qualification is required no less frequently than every six months.
(c) Proof of certification shall be made by including copies of the signed and dated certificates or cards issued by the training providers with documentation of visible emissions observations submitted to the department, or otherwise upon request of the department.
(2) Requirements for Training Providers. All persons providing training leading to the certification of persons engaged in determining the opacity of visible emissions in Florida shall meet the requirements of subsections 62-297.320(2)-(8), F.A.C.
(a) For certification purposes, the classroom lecture and field certification are separate and independent requirements. For each course scheduled, each training provider shall offer a classroom lecture and one or more days of field qualification.

(b) Copies of quality assurance documentation, attendance records and field data sheets shall be maintained for a period of no less than three years after the conclusion of each course and shall be made available to the department upon request.
(c) Each training provider shall arrange for suitable locations for the classroom lecture and field qualification sessions that facilitate learning and reduce the impact of the smoke on passersby.
(d) To assure that cigar, pipe or cigarette smoke does not interfere with the observations of the trainees, each training provider shall enforce a policy of no smoking within the field qualification area.
(3) Classroom Lecture.
(a) The classroom lecture shall include the following topics and exercises:
1. Sources and causes of visible emissions.
2. Common types of emission control equipment and their effects on visible emissions observations.
3. History of opacity measurement.
4. Principles and theory of opacity.
5. Plume types and characteristics.
6. Legal aspects of visible emissions observations and legal defensibility of Method 9.
7. Basic meteorological conditions that influence plume behavior.
8. Proper procedures for conducting field observations under a variety of conditions.
9. A demonstration of commonly used measurement devices including a compass, a wind speed measurement device, and an inclinometer.
10. A written exercise demonstrating the proper procedure for documentation of observations.
(b) Training providers shall issue a signed and dated certificate or card to all persons attending the classroom lecture.
(4) Field Qualification.
(a) The field qualification shall be conducted in accordance with the requirements set forth in 40 CFR Part 60, Subpart A, EPA Method 9, adopted and incorporated by reference at Rule 62-204.800, F.A.C.; EPA Quality Assurance Handbook for Air Pollution Measurement Systems: Volume III, Section 3.12, hereby adopted and incorporated by reference; and EPA Guidelines for Evaluation of Visible Emissions (EPA 340/1-75-007, April 1975), hereby adopted and incorporated by reference.
(b) Each training provider shall meet requirements for quality assurance at least as stringent as those outlined in EPA Method 9.
(c) Each training provider shall monitor the attendees so that conferring or copying results during field qualification does not occur.
(d) Each training provider shall not provide hints of any kind or demonstrate the smoke standards during the field qualification sessions, except during familiarization runs prior to each test.
(e) Training providers shall issue a signed and dated certificate or card to all persons who successfully complete the field qualification.
(5) Notification to Department of Training Course Offerings. Each training provider shall notify the Department of all visible emissions training courses such provider offers in Florida at least 30 days prior to the start of each course.
(6) Notification to Department of Persons Receiving Certification. Each training provider shall provide a list of the names of attendees receiving certification at its courses to the department no later than 30 days after the conclusion of each course.

(7) Audit by the Department. For auditing purposes, each training provider shall allow one or more persons from the Department or a local air pollution control agency to observe each visible emissions training course offered in Florida without advance notice to the training provider. The training provider shall not issue a certificate or card to the observers, and shall not charge a fee for their attendance.
(8) Invalidation of Certificates. After investigation by the department, should any training provider's course be found by the department to not meet the requirements of this section, the certificates or cards offered by such provider for such course shall not be considered valid for visible emissions observations in Florida.

Specific Authority 403.061 FS. Law Implemented 403.031, 403.061 FS. History–New 2-12-04.

62-297.520 EPA Continuous Monitor Performance Specifications.

This rule lists the continuous monitor performance specifications to be used where required by Department air pollution rule or air permit. The EPA performance specifications listed in this rule and contained in 40 CFR 60, Appendix B, are adopted and incorporated by reference in Rule 62-204.800, F.A.C. The EPA performance specifications that are adopted by reference at Rule 62-204.800, F.A.C., are adopted in their entirety except for those provisions referring to approval of alternative procedures by the Administrator. For purposes of this rule, such alternative procedures may only be approved by the Secretary or his or her designee in accordance with Rule 62-297.620, F.A.C.
(1) Performance Specification 1 – Specifications and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources.
(2) Performance Specification 2 – Specifications and Test Procedures for SO2 and NOx Continuous Emission Monitoring Systems in Stationary Sources.
(3) Performance Specification 3 – Specifications and Test Procedures for O2 and CO2 Continuous Emission Monitoring Systems in Stationary Sources.
(4) Performance Specification 4 – Specifications and Test Procedures for Carbon Monoxide Continuous Emission Monitoring Systems in Stationary Sources.
(5) Performance Specification 4A – Specifications and Test Procedures for Carbon Monoxide Continuous Emission Monitoring Systems in Stationary Sources.
(6) Performance Specification 5 – Specifications and Test Procedures for TRS Continuous Emission Monitoring Systems in Stationary Sources.
(7) Performance Specifications 6 – Specifications and Test Procedures for Continuous Emission Rate Monitoring Systems in Stationary Sources.
(8) Performance Specifications 7 – Specifications and Test Procedures for Hydrogen Sulfide Continuous Emission Monitoring Systems in Stationary Sources.
(9) Performance Specification 8 – Performance Specifications for Volatile Organic Compound Continuous Emission Monitoring Systems in Stationary Sources.
(10) Performance Specification 9 – Specifications and Test Procedures for Gas Chromatographic Continuous Emission Monitoring Systems in Stationary Sources.

Subsection E. 40 CFR 60 Subpart Ce/Ec Definitions

E.U. ID No.	Brief Description
006	Hospital/Medical/Infectious Waste Incinerator

The following specific conditions may apply to the emissions unit(s) listed above:

§ 60.51c Definitions.

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.

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

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

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

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

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

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

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

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

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

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

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

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

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

Large HMIWI means:

(1) Except as provided in (2);

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

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

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

(2) The following are not large HMIWI:

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

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

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

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

Maximum charge rate means:

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

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

Maximum design waste burning capacity means:

(1) For intermittent and continuous HMIWI,

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

Where:

C=HMIWI capacity, lb/hr
P_V=primary chamber volume, ft^3
15,000=primary chamber heat release rate factor, $Btu/ft^3/hr$
8,500=standard waste heating value, Btu/lb;

(2) For batch HMIWI,

$C=P_V\times 4.5/8$

Where:

C=HMIWI capacity, lb/hr
P_V=primary chamber volume, ft^3
4.5=waste density, lb/ft^3
8=typical hours of operation of a batch HMIWI, hours.

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

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

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

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

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

(3) Human blood and blood products including:

(i) Liquid waste human blood;

(ii) Products of blood;

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

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

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

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

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

Medium HMIWI means:

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

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

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

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

(2) The following are not medium HMIWI:

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

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

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

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

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

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

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

Minimum 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, or dioxin/furan emission limits.

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

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

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

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

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

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

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

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

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

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

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

Small HMIWI means:

(1) Except as provided in (2);

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

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

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

(2) The following are not small HMIWI:

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

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

Standard conditions means a temperature of 20 °C and a pressure of 101.3 kilopascals.
Startup means the period of time between the activation of the system and the first charge to the unit. For batch HMIWI, startup means the period of time between activation of the system and ignition of the waste.

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