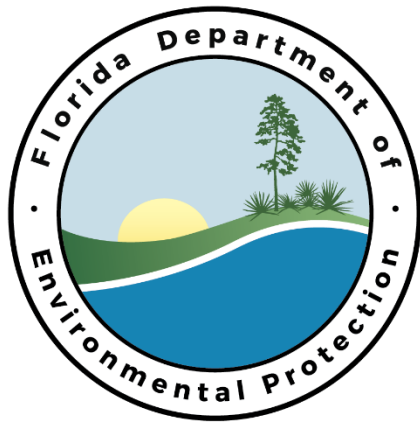


Solid Waste Authority of Palm Beach County
Palm Beach Renewable Energy Park (PBREP)
Facility ID No. 0990234
Palm Beach County

Title V Air Operation Permit Renewal
Permit No. 0990234-037-AV
(Renewal of Title V Air Operation Permit No. 0990234-020-AV)



Permitting Authority:

State of Florida
Department of Environmental Protection
Division of Air Resource Management
Office of Permitting and Compliance
2600 Blair Stone Road
Mail Station #5505
Tallahassee, Florida 32399-2400
Telephone: 850/717-9000
Fax: 850/717-9097

Compliance Authority:

State of Florida
Department of Environmental Protection
Southeast District Office
3301 Gun Club Road, MSC 7210-1
West Palm Beach, Florida 33406
Telephone: 561/681-6600
Fax: 561/681-6755

Title V Air Operation Permit Renewal

Permit No. 0990234-037-AV

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Appendix 40 CFR 60 Subpart Eb, NSPS for Large Municipal Waste Combustors (version dated 04/21/2008).	
Appendix 40 CFR 60 Subpart IIII “Generally Applicable Requirements,” Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (version dated 07/11/2006).	
Appendix 40 CFR 60 Subpart WWW, NSPS for Municipal Solid Waste Landfills (version dated 08/06/2009).	
Appendix 40 CFR 61 Subpart A, NESHAP General Provisions (version dated 05/06/2004).	
Appendix 40 CFR 61 Subpart E, NESHAP for Mercury (version dated 03/20/2003).	
Appendix 40 CFR 61 Subpart M “Set A,” NESHAP for Asbestos (version dated 08/19/2004).	
Appendix 40 CFR 63 Subpart A, NESHAP General Provisions.	
Appendix 40 CFR 63 Subpart AAAA, NESHAP for Municipal Solid Waste Landfills (version dated 08/06/2009).	
Appendix 40 CFR 63 Subpart ZZZZ “Generally Applicable Requirements,” National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.	

Appendix A, Abbreviations, Acronyms, Citations and Identification Numbers.

Appendix ATP, U.S. EPA Alternative Test Procedure Approval dated June 3, 2004.

Appendix BW, Biomedical Waste Definitions.

Appendix CAM, Compliance Assurance Monitoring Plan.

Appendix HGV, DEP Order Granting Variance for Mercury Testing dated August 25, 1997.

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

Appendix RR, Facility-wide Reporting Requirements.

Appendix TR, Facility-wide Testing Requirements.

Appendix TV, Title V General Conditions.

Appendix U, List of Unregulated Emissions Units and/or Activities.

Referenced Attachments. At End of Appendices Document

Table H, Permit History.

DEP approval dated October 25, 2005 regarding Landfill Higher Wellhead Operating Temperature.

DEP approval dated December 13, 2005 regarding Landfill Gas Well Inactivation Plan.

Table E-1. Summary of Maintenance Requirements for Engines.

Table L-1. Summary of Monitoring Requirements for MSW Landfills (40 CFR 60, Subpart WWW and 40 CFR 63, Subpart AAAA).

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U.S. EPA letter dated July 7, 1999 regarding CAM applicability for MWCs.

U.S. EPA letter dated April 6, 2000 regarding Beryllium Containing Wastes.

U.S. EPA approval letter dated June 7, 2002 regarding Reduction in Frequency of Surface Monitoring of Methane Gas Emissions.

U.S. EPA e-mail dated January 22, 2009 regarding Testing Schedule for Fugitive Ash and HCl Emissions.



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

PERMITTEE:

Solid Waste Authority of Palm Beach County
7501 North Jog Road
West Palm Beach, FL 33412

Permit No. 0990234-037-AV
Palm Beach Renewable Energy Park (PBREP)
Facility ID No. 0990234
Project: Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V air operation permit for the above referenced facility. This existing facility is located in Palm Beach County at 7501 North Jog Road, West Palm Beach, Florida; UTM Coordinates are: Zone 17, 585.82 km East and 2960.474 km North; Latitude: 26° 45' 53" North and Longitude: 80° 08' 12" West.

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

Effective Date: September 1, 2016

Renewal Application Due Date: January 19, 2021

Expiration Date: September 1, 2021

For:

Syed Arif, P.E., Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

SA/dlr/sms

SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

The Palm Beach Renewable Energy Park is located in Palm Beach County at 7501 North Jog Road, West Palm Beach, Florida.

The Palm Beach Renewable Energy Park (PBREP) consists of two renewable energy facilities (“Palm Beach Renewable Energy Facility No. 1” and “Palm Beach Renewable Energy Facility No. 2”) also known as waste-to-energy (WTE) facilities. Each individual facility, the Palm Beach Renewable Energy Facility No. 1 (“PBREF-1”) and the Palm Beach Renewable Energy Facility No. 2 (“PBREF-2”) are further described below.

The existing PBREF-1 facility is a municipal waste combustor plant designed to process 2,000 tons per day (TPD) of municipal solid waste (MSW). The facility burns processed MSW that is called “refuse derived fuel” (RDF). The RDF plant is equipped with three MSW processing lines, any two of which can handle the 2,000 TPD of incoming MSW. The boiler plant includes two Babcock & Wilcox (B&W) boilers (Nos. 1 and 2) with auxiliary burners. Each boiler was designed with a maximum heat input of 427.5 MMBtu/hr and a maximum steam production rating of 324,000 lbs/hour. At a reference heating value of 5,700 Btu/lb, this is equivalent to 900 TPD of RDF per boiler. The gross nominal electric generating capacity of the facility is 62 megawatts (MW). These emissions units are referred to as the Palm Beach Renewable Energy Facility Number 1 (“PBREF-1”).

The recently constructed PBREF-2 facility consists of three 1,000 TPD mass-burn MWC units, each with a maximum steam production rate of 320,100 pounds per hour (lb/hr) on a 4-hour average block basis. The supporting equipment for the new units include a 90 to 100 MW steam turbine generator (STG); two lime storage silos; one carbon storage silo; two diesel engine-driven fire pumps; one emergency generator; and one ash handling system and building. The new equipment is collectively referred to as the Palm Beach Renewable Energy Facility Number 2 (“PBREF-2”).

Two landfills, a Class I Landfill and a Class III Landfill, each with its own gas collection system and flare, are also located at the facility.

A biosolids pelletization facility (BPF) is located adjacent to the existing landfill.

Additional activities at the facility include: material processing systems, a metals recovery system, storage and handling systems for RDF; lime storage and processing facilities; storage and handling systems for ash and ash treatment; and, cooling towers.

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

The total capacity of this existing facility is 5,000 tons/day (TPD) of municipal solid waste fuel. The nominal (i.e., generator nameplate) electric generating capacity of the facility is 162 megawatts (MW), which is sold to the local utility company. The facility is owned and currently operated by the Solid Waste Authority of Palm Beach County.

Subsection B. Summary of Emissions Units.

E.U. ID No.	Brief Description
<i>Regulated Emissions Units</i>	
<i>Palm Beach Renewable Energy Facility No. 1 (PBREF-1)</i>	
	<i>Municipal Waste Combustors</i>
001	Municipal Solid Waste Boiler No. 1
002	Municipal Solid Waste Boiler No. 2
019	Ash Building and Handling System
<i>Palm Beach Renewable Energy Facility No. 2 (PBREF-2)</i>	

SECTION I. FACILITY INFORMATION.

	<i>Municipal Waste Combustor</i>
024	Municipal Waste Combustor - Unit No. 3
025	Municipal Waste Combustor - Unit No. 4
026	Municipal Waste Combustor - Unit No. 5
027	Lime Storage Silo A
028	Lime Storage Silo B
030	Activated Carbon Storage Silo
034	Ash Handling System and Building
<i>Landfills and Flares</i>	
004	Class III Landfill and Flare (1,800 scfm, manufactured by LFG Specialties, model number PCF820I8)
008	Class I Landfill and Flare (3,500 scfm, manufactured by Shaw LFG Specialties, model number CF1238I10)
<i>Biosolids Pelletization Facility (BPF)</i>	
010	BPF Sludge Dryer Train #1
011	BPF Sludge Dryer Train #2
012	BPF Recycle Material Bin for Sludge Dryer Train #1
014	BPF Recycle Material Bin for Sludge Dryer Train #2
045	Pellet Storage Silo for Sludge Dryer Trains #1 & 2
<i>Engines</i>	
016	Emergency Generator - Biosolids Pelletization Facility (BPF) (EPA Tier 3 certified)
021	Emergency Generator - Operations Building (EPA Tier 3 certified)
031	Emergency Firewater Pump Engine A (351 HP) - PBREF No. 2 (EPA Tier 3 certified)
032	Emergency Firewater Pump Engine B (351 HP) - PBREF No. 2 (EPA Tier 3 certified)
033	Emergency Generator - PBREF No. 2 (EPA Tier 2 certified)
035	PBREF No. 1 Emergency Generator
036	PBREF No. 1 Emergency Fire Water Pump
037	Emergency Generator - Scalehouse (EPA Tier 3 certified)
038	Emergency Generator - Utilities Facility
042	Emergency Generator - Administration
043	Emergency Generator - Materials Recovery Facility (MRF) (EPA Tier 2 certified) (SWA of PBC ID# MRF-E1)
046	Emergency Generator - Landfill Scalehouse E2 (EPA Tier 3 certified)
047	Emergency Generator - MIS (EPA Tier 3 certified)

SECTION I. FACILITY INFORMATION.

<i>Unregulated Emissions Units and/or Activities</i>	
005	RDF Storage
006	RDF Processing Lines
007	Oversized Bulk Waste Processing Line
018	Cooling Towers (3) at PBREF No. 1 {The cooling towers do not use chromium-based water treatment chemicals.}

Subsection C. Applicable Requirements.

Based on the Title V air operation permit renewal application received on February 19, 2016, this facility is a major source of hazardous air pollutants (HAP). This facility is classified as a Prevention of Significant Deterioration (PSD) major facility. A summary of important applicable requirements is shown in the following table.

Applicable Requirement	E.U. ID No(s).
<i>Palm Beach Renewable Energy Facility No. 1 (PBREF-1)</i>	
<i>Municipal Waste Combustors</i>	
40 CFR 60, Subpart A, Standards of Performance for New Stationary Sources (NSPS) General Provisions	001, 002 & 019
40 CFR 60, Subpart Cb, Emissions Guidelines (EG) and Compliance Times for Large Municipal Waste Combustors <i>{Permitting note(s): The EG 40 CFR 60, Subpart Cb, cross references applicable requirements that are contained in the NSPS 40 CFR 60, Subparts A and Eb.}</i>	001, 002 & 019
Rule 62-296.416, F.A.C., Waste-to-Energy Facilities	001 & 002
Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD)	001, 002 & 019
Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT)	001, 002 & 019
<i>Palm Beach Renewable Energy Facility No. 2 (PBREF-2)</i>	
<i>Municipal Waste Combustors & Auxiliary Burners</i>	
40 CFR 60, Subpart A, Standards of Performance for New Stationary Sources (NSPS) General Provisions	024, 025, 026 & 034
40 CFR 60, Subpart Eb, NSPS for Large Municipal Waste Combustors	024, 025, 026 & 034
Rule 62-296.416, F.A.C., Waste-to-Energy Facilities	024, 025 & 026
Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD)	024, 025, 026, 027, 028, 030 & 034
Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT)	024, 025, 026, 027, 028, 030 & 034
<i>Landfills and Flares</i>	

SECTION I. FACILITY INFORMATION.

40 CFR 60, Subpart A, Standards of Performance for New Stationary Sources (NSPS) General Provisions	004 & 008
40 CFR 60, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills	004 & 008
40 CFR 61, Subpart A, General Provisions	004 & 008
40 CFR 61, Subpart M, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Asbestos	004 & 008
40 CFR 63, Subpart A, General Provisions	004 & 008
40 CFR 63, Subpart AAAA, National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills	004 & 008
<i>Biosolids Pelletization Facility (BPF)</i>	
40 CFR 61, Subpart A, General Provisions	010 & 011
40 CFR 61, Subpart E, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Mercury	010 & 011
40 CFR 64, Compliance Assurance Monitoring (CAM)	010 & 011
Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD)	010, 011, 012 & 014
Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT)	010, 011, 012 & 014
<i>Engines</i>	
40 CFR 60, Subpart A, Standards of Performance for New Stationary Sources (NSPS) General Provisions	016, 021, 031, 032, 033, 037, 042, 043, 046 & 047
40 CFR 60, Subpart IIII, NSPS for Compression Ignition Internal Combustion Engines (CI-ICE)	016, 021, 031, 032, 033, 037, 042, 043, 046 & 047
40 CFR 63, Subpart A, General Provisions	016, 021, 031, 032, 033, 035-038, 042, 043, 046 & 047
40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE)	016, 021, 031, 032, 033, 035-038, 042, 043, 046 & 047
<i>Unregulated Emissions Units and/or Activities</i>	
Rule 62-210.300, F.A.C., Permits Required	005, 006, 007 & 018

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SECTION II. FACILITY-WIDE CONDITIONS.

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

FW1. Appendices. The permittee shall comply with all documents identified in Section IV., Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW2. Not federally enforceable. Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An “objectionable odor” means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) & 62-210.200 (Definitions), F.A.C.]

FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1)(a), F.A.C.]

{Permitting note: Nothing is deemed necessary and ordered at this time.}

FW4. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b), F.A.C.]

FW5. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- a. Chemical or water application to unpaved road and unpaved yard and landfill areas;
- b. Paving and maintenance of roads, parking areas and yards;
- c. Landscaping or planting of vegetation;
- d. Confining abrasive blasting where possible and appropriate;
- e. Unpaved roads and active unpaved areas are sprayed with a water truck;
- f. Landfill areas that are closed are promptly re-vegetated;
- g. Ash is quenched with water prior to landfilling;
- h. Waste transfer trucks are tarped;
- i. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities;
- j. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent re-entrainment, and from buildings or work areas to prevent particulates from becoming airborne;
- k. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter;
- l. Enclosure or covering of conveyor systems; and,
- m. Tipping floor at PBREF No. 2 is maintained under negative pressure during active periods.

[Rule 62-296.320(4)(c), F.A.C.; Permit No. 0990234-032-AC/PSD-FL-413C; and, proposed by applicant in the Title V air operation permit renewal application received on February 19, 2016.]

Annual Reports and Fees

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

FW6. Electronic Annual Operating Report (EAOR) and Title V Annual Emissions Fees. The information required by the Annual Operating Report for Air Pollutant Emitting Facility [Including Title V Source

SECTION II. FACILITY-WIDE CONDITIONS.

Emissions Fee Calculation] (DEP Form No. 62-210.900(5)) shall be submitted by April 1st of each year, for the previous calendar year, to the Department of Environmental Protection's Division of Air Resource Management. Each Title V source shall submit the annual operating report using the DEP's Electronic Annual Operating Report (EAOR) software, unless the Title V source claims a technical or financial hardship by submitting DEP Form No. 62-210.900(5) to the DEP's Division of Air Resource Management instead of using the reporting software. Emissions shall be computed in accordance with the provisions of Rule 62-210.370(2), F.A.C. Each Title V source must pay between January 15th and April 1st of each year an annual emissions fee in an amount determined as set forth in Rule 62-213.205(1), F.A.C. The annual fee shall only apply to those regulated pollutants, except carbon monoxide and greenhouse gases, for which an allowable numeric emission-limiting standard is specified in the source's most recent construction permit or operation permit. Upon completing the required EAOR entries, the EAOR Title V Fee Invoice can be printed by the source showing which of the reported emissions are subject to the fee and the total Title V Annual Emissions Fee that is due. The submission of the annual Title V emissions fee payment is also due (postmarked) by April 1st of each year. A copy of the system-generated EAOR Title V Annual Emissions Fee Invoice and the indicated total fee shall be submitted to: **Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida. 32315-3070**. Additional information is available by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: <http://www.dep.state.fl.us/air/emission/tvfee.htm>. [Rules 62-210.370(3), 62-210.900 & 62-213.205, F.A.C.; and, Section 403.0872(11), Florida Statutes (2013)]

{Permitting notes:

If the permittee chooses to use the EAOR software, instructions provided with the system should be followed.

Resources to help complete the AOR are available on the website at:

<http://www.dep.state.fl.us/air/emission/eaor>. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at eaor@dep.state.fl.us.

Also, the Title V Annual Emissions Fee form (DEP Form No. 62-213.900(1)) was repealed; a separate Annual Emissions Fee form is no longer required to be submitted by March 1st each year.

FW7. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit and to the U.S. EPA at the address shown below within 60 days after the end of each calendar year during which the Title V air operation permit was effective. (See also Appendix RR, Conditions RR1 and RR7.) [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

U.S. Environmental Protection Agency, Region 4
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303
Attn: Air Enforcement Branch

{Permitting note: As specified in Specific Condition RR7 of Appendix RR, the permittee shall use DEP Form No. 62-213.900(7) to comply with this requirement.}

FW8. Prevention of Accidental Releases (Section 112(r) of CAA). If and when the facility becomes subject to 112(r), the permittee shall:

- a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent electronically through EPA's Central Data Exchange system at the following address: <https://cdx.epa.gov>. Information on electronically submitting risk management plans using the Central Data Exchange system is available at: <http://www2.epa.gov/rmp>. The RMP Reporting Center can be contacted at: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: 703/227-7650.

SECTION II. FACILITY-WIDE CONDITIONS.

- b. Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68.]

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SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emission Units 001, 002 & 019

PBREF-1: Municipal Solid Waste Boiler Nos. 1 & 2 and Ash Building and Handling System

The specific conditions in this section apply to the following emissions unit(s):

E.U. ID No.	Brief Description
<i>Palm Beach Renewable Energy Facility No. 1 (PBREF-1)</i>	
	<i>Municipal Waste Combustors</i>
001	Municipal Solid Waste Boiler No. 1
002	Municipal Solid Waste Boiler No. 2
019	Ash Building and Handling System

Description: Units 1 and 2 are identical Babcock & Wilcox MSWC units that began commercial operation on November 15, 1989. The following descriptions include the changes being made in this permit.

Boiler Type: The boiler use a moving grate to burn the RDF fuel.

Fuel: RDF.

Supplementary Fuel: Natural gas is used for startup, shutdown and during combustion of low Btu waste to maintain combustor temperature.

Capacity: The permitted capacity is 324,000 pounds per hour of steam (4-hour block average) based on a unit design capacity of 900 tons per day of RDF.

Generator Nameplate Rating: 62 Megawatts (MW).

Spray Dryer Absorber (SDA): Each unit uses lime injection to control acid gas emissions.

Fabric Filter System: Each unit uses a fabric filter system to control particulate matter (PM) emissions.

Combustion Control System and OFA System: Each unit optimizes furnace conditions with an automated control system and OFA system for proper combustion while minimizing carbon monoxide (CO), nitrogen oxides (NOx) and volatile organic compounds (VOC).

SNCR System: Each unit injects urea with an SNCR system to control NOx emissions.

ACI System: Each unit injects activated carbon to adsorb metal and dioxin/furan emissions, which are then collected by the fabric filter system.

Continuous Monitors: Each unit uses the following equipment to continuously monitor the following pollutants and parameters: continuous emissions monitoring systems (CEMS) for CO, carbon dioxide (CO₂), NOx and sulfur dioxide (SO₂); continuous opacity monitoring system (COMS) for opacity; and continuous monitoring systems (CMS) for the temperature of the flue gas stream at the fabric filter inlet, the steam production rate and urea injection rate.

Stack Parameters: Units 1 and 2 each have a stack that is 250 feet tall with a diameter of 8 feet and are both surrounded by a single stack shell. The volumetric flow rates of each MSWC at permitted capacity are approximately 191,494 actual cubic feet per minute (acfm) and 116,274 dry standard cubic feet per minute (dscfm) @ 7% oxygen (O₂).

Exit Temperature: Approximately 310 °F, as measured downstream of the SDA.

Emissions Unit ID No. 019 is the Ash Building and Handling System. Fly ash from the fabric filter system is wetted to control the dust and minimize fugitive emissions. Bottom ash from the RDF boilers is combined with the fly ash prior to going to the landfill. Emissions from the building are uncontrolled.

{Permitting notes: These emissions units are regulated under 40 CFR 60, Subpart Cb, Emissions Guidelines (EG) and Compliance Times for Large Municipal Waste Combustors (MWC) adopted and incorporated by reference in Rule 62-204.800(9)(b), F.A.C.; Rule 62-296.416, F.A.C., Waste-to-Energy Facilities; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) [PSD-FL-108, as amended]; Rule 62-212.400(6),

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emission Units 001, 002 & 019

PBREF-1: Municipal Solid Waste Boiler Nos. 1 & 2 and Ash Building and Handling System

F.A.C., Best Available Control Technology (BACT); and, Florida Electrical Power Plant Site Certifications [PA84-20].

Essential Potential to Emit (PTE) Parameters

- A.1. Hours of Operation.** These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.; and, Permit No. 0990234-015-AC/PSD-FL-108H.]
- A.2. Capacity.** The following maximum values (capacities) shall not be exceeded:
- a. 324,000 lbs/hr individual MWC unit steam production on a 4-hour block arithmetic average.
- The MWC units shall not be loaded in excess of their maximum operating capacity, equivalent to 2,000 TPD of mixed MSW. See 40 CFR 60.31b of Appendix 40 CFR 60, Subpart Cb and 40 CFR 60.58b(j) of Appendix 40 CFR 60, Subpart Eb for additional restrictions on capacity. [Rules 62-4.160(2) & 62-210.200 (PTE), F.A.C.; 40 CFR 60.31b & 40 CFR 60.58b(j); and, Permit No. 0990234-015-AC/PSD-FL-108H.]
- A.3. Emissions Unit Operating Rate Limitation After Testing.** See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. See the “maximum demonstrated municipal waste combustor unit load” provisions of 40 CFR 60.34b(b) and 40 CFR 60.51b for additional restrictions on operating rate. [Rule 62-297.310(2), F.A.C.; and, 40 CFR 60.34b(b) & 40 CFR 60.51b.]
- A.4. MWCs - Fuels.** The open storage of solid waste outside of a building is prohibited. [PSD-FL-108A, specific condition 10.]
- A.5. MWCs - Methods of Operation - Fuels.**
- a. Allowable Fuels.
 - (1) The only fuels allowed to be burned in the MWCs is RDF from mixed municipal solid waste (MSW), with natural gas as an auxiliary fuel. Other fuels or wastes, not specifically listed herein, shall not be burned without written prior approval from the Department. Fuels or wastes specifically authorized herein do not require prior Department approval before combustion.
 - (2) The primary fuel for the facility is RDF from mixed municipal solid waste (MSW), including the items and materials that fit within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), Florida Statutes (2010). The following items and materials fit within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), Florida Statutes (2010):
 - (a) Residue from the Recycling of Construction & Demolition (C&D) Debris. This residue is the combustible material that is removed from typical C&D debris at a recycling facility. This residue may contain some incidental amounts of non-combustibles.
 - (b) Residue from Processing Recovered Materials. Recovered Materials are defined in Section 403.703, Florida Statutes, as metal, paper, glass, plastic, textile, or rubber materials that have been diverted and source separated from the solid waste stream. These materials are collected from residential and commercial customers and then processed at a Recovered Materials Processing Facility (“RMPF”). The residue generated at the RMPF includes non-recyclable materials (e.g., food waste) and recyclable materials that were missed or rejected on the sorting line at the RMPF.
 - (c) Residue from Processing Recyclables at a Dirty MRF or a Single Stream MRF. Materials Recovery Facilities (“MRFs”) generate various residues from the processing of MSW and recyclable materials. At a “dirty” MRF, MSW is delivered and recyclable materials are extracted from the solid waste. At a “single stream” MRF, recyclable materials that are collected at curbside are delivered in a “single stream” (i.e., all of the customer’s recyclable materials are placed into one container and then collected together in a single, comingled load). The residues from dirty and single stream MRFs are materials that are rejected from the processing lines inside the MRFs (e.g., items that are removed from the sorting lines because they are unsuitable for recycling) and materials that simply escaped processing.

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- b. *Unauthorized Fuels.* Subject to the limitations contained in this permit, the authorized fuels for the facility also include the other solid wastes that are not MSW, which are described in **d. - f.**, below. However, the facility
- (1) shall not burn:
 - (a) those materials that are prohibited by state or federal law;
 - (b) those materials that are prohibited by this permit;
 - (c) lead acid batteries;
 - (d) hazardous waste;
 - (e) nuclear waste;
 - (f) radioactive waste;
 - (g) sewage sludge;
 - (h) sewage sludge from sewage treatment plants ¹;
 - (i) explosives;
 - (j) beryllium-containing waste, as defined in 40 CFR 61, Subpart C. *{The U.S. EPA letter dated April 6, 2000 (see attached), on 40 CFR 61, Subpart C further addresses the applicability of this federal regulation with regard to beryllium-containing waste(s).}*
 - (2) and shall not knowingly burn:
 - (a) untreated biomedical waste from biomedical waste generators regulated pursuant to Chapter 64E-16, F.A.C., and from other similar generators (or sources). See the attached Appendix BW, Biomedical Waste Definitions, for definitions of what constitutes biomedical waste;
 - (b) segregated loads of biological waste.
- c. *Fuel Handling.* The fuel may be received either as a mixture or as a single-item stream (segregated load) of discarded materials. If the facility intends to use an authorized fuel that is segregated non-MSW material, the fuel shall be well mixed with MSW. For the purposes of this permit, a segregated load is defined to mean a container or truck that is almost completely or exclusively filled with a single item or homogeneous composition of waste material, as determined by visual observation.
- d. *Other Solid Waste.* Subject to the conditions and limitations contained in this permit, the following other solid waste may be used as fuel at the facility:
- (1) Confidential, proprietary or special documents (including but not limited to business records, lottery tickets, event tickets, coupons and microfilm);
 - (2) Contraband which is being destroyed at the request of appropriately authorized local, state or federal governmental agencies, provided that such material is not an explosive, a propellant, a hazardous waste, or otherwise prohibited at the facility. For the purposes of this section, contraband includes but is not limited to drugs, narcotics, fruits, vegetables, plants, counterfeit money, and counterfeit consumer goods;
 - (3) Wood pallets, clean wood, and land clearing debris;
 - (4) Packaging materials and containers;
 - (5) Clothing, natural and synthetic fibers, fabric remnants, and similar debris, including but not limited to aprons and gloves; or
 - (6) Rugs, carpets, and floor coverings, but not asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings.
- e. *Waste Tires.* Subject to the conditions and limitations contained in this permit, waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 3%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis.
- f. *Non-MSW Material.* Subject to the conditions and limitations contained in this permit, the following other solid waste materials may be used as fuel at the facility (i.e., the following are authorized fuels that are non-MSW material). The total quantity of the following non-MSW material received as segregated loads and burned at the facility shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis.

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- (1) Construction and demolition debris.
- (2) Oil spill debris from aquatic, coastal, estuarine or river environments. Such items or materials include but are not limited to rags, wipes, and absorbents.
- (3) Items suitable for human, plant or domesticated animal use, consumption or application where the item's shelf-life has expired or the generator wishes to remove the items from the market. Such items or materials include but are not limited to off-specification or expired consumer products, pharmaceuticals, medications, health and personal care products, cosmetics, foodstuffs, nutritional supplements, returned goods, and controlled substances.
- (4) Consumer-packaged products intended for human or domesticated animal use or application but not consumption. Such items or materials include but are not limited to carpet cleaners, household or bathroom cleaners, polishes, waxes and detergents.
- (5) Waste materials that:
 - (a) are generated in the manufacture of items in categories **f.(3)** or **f.(4)**, above and are functionally or commercially useless (expired, rejected or spent); or
 - (b) are not yet formed or packaged for commercial distribution. Such items or materials must be substantially similar to other items or materials routinely found in MSW.
- (6) Waste materials that contain oil from:
 - (a) the routine cleanup of industrial or commercial establishments and machinery; or
 - (b) spills of virgin or used petroleum products. Such items or materials include but are not limited to rags, wipes, and absorbents.
- (7) Used oil and used oil filters. Used oil containing a polychlorinated biphenyls (PCB) concentration equal or greater than 50 parts per million (ppm) shall not be burned, pursuant to the limitations of 40 CFR 761.20(e).
- (8) Waste materials generated by manufacturing, industrial or agricultural activities, provided that these items or materials are substantially similar to items or materials that are found routinely in MSW, subject to written prior approval of the Department.

[Rules 62-4.070(1), (3), 62-213.410 & 62-213.440, F.A.C.; ¹ PSD-FL-108A, specific condition 11.; and, Applicant Request.]

{Permitting note: At RDF plants, the 3% (or 5%) restriction applies to the municipal solid waste received. On-site processing of material at the facility is not included in this restriction. Exceedance of this percentage requires prior department approval.}

A.6. Auxiliary Burners - Methods of Operation - Fuels. Auxiliary burners for each MWC shall be fired only with natural gas. Natural gas may be used as a supplemental fuel during startups, shutdowns, and at other times when necessary and consistent with good combustion practices. [Rules 62-4.160(2), 62-210.200 (PTE), 62-213.410, & 62-213.440, F.A.C.; and, PSD-FL-108A.]

A.7. Auxiliary Gas Burner Operations.

- a. During boiler startup, the auxiliary gas burners shall be operating at their maximum capacity prior to the introduction of RDF to the boilers, and shall remain in operation until the lime spray dryer absorbers and particulate matter emissions control device (fabric filter system) are fully operational.
- b. During normal, non-emergency boiler shutdown, the auxiliary gas burners shall be operated at their maximum capacity until all RDF has been combusted.

[Rules 62-4.160(2), 62-210.200 (PTE), 62-213.410, & 62-213.440, F.A.C.; 0992034-015-AC/PSD-FL-108H; and, PSD-FL-108A, specific conditions 7. & 8.]

Air Pollution Control Technologies and Measures

A.8. Carbon Usage Rate. The carbon injection rate operating standard and monitoring requirements set forth in 40 CFR 60.58b(m) of 40 CFR 60, Subpart Eb, incorporated by reference in Rule 62-204.800, F.A.C., shall apply. See Appendix 40 CFR 60, Subpart Eb. [Rule 62-296.416(5), F.A.C.]

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Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **A.9. - A.19.** are based on the specified averaging time of the applicable test method.

{Permitting note: The May 10, 2006 amendments to 40 CFR 60 Subpart Cb changed some of the emission standards and limitations for Unit Nos. 1 & 2. Five (5) air pollutant standards/limitations were lowered under the amendments: PM, cadmium (Cd), Hg, Pb and dioxin/furan (D/F).}

Stack Emissions

- A.9. Particulate Matter (PM) Emissions.** The emission limit for particulate matter (PM) contained in the gases discharged to the atmosphere is 25 milligrams (mg) per dry standard cubic meter, corrected to 7 percent oxygen. [Rule 62-204.800(9)(b)3.a., F.A.C.; 40 CFR 60.33b(a)(1)(i); and, PSD-FL-108A, specific condition 3.a.]
- A.10. Opacity.** As determined by the continuous opacity monitoring system (COMS) or EPA Method 9, the emission limit for opacity exhibited by the gases discharged to the atmosphere is 10 percent (6-minute average). [Rule 62-204.800(9)(b)3.b., F.A.C.; 40 CFR 60.33b(a)(1)(iii); and, PSD-FL-108A, specific condition 3.k. & Permit No. 0990234-015-AC/PSD-FL-108H, specific condition 17.e.]
- A.11. Cadmium.** The emission limit for cadmium (Cd) contained in the gases discharged to the atmosphere is 35 micrograms (ug) per dry standard cubic meter, corrected to 7 percent oxygen. [Rule 62-204.800(9)(b)3.c., F.A.C. and 40 CFR 60.33b(a)(2)(i).]
- A.12. Mercury.** The emission limit for mercury (Hg) contained in the gases discharged to the atmosphere is 50 micrograms per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent. [Rule 62-204.800(9)(b)3.d., F.A.C.; 40 CFR 60.33b(a)(3); and, PSD-FL-108A, specific condition 3.e.]
- A.13. Lead.** The emission limit for lead (Pb) contained in the gases discharged to the atmosphere is 400 micrograms per dry standard cubic meter, corrected to 7 percent oxygen. [Rule 62-204.800(9)(b)3.c., F.A.C.; 40 CFR 60.33b(a)(4); and, PSD-FL-108A, specific condition 3.d.]
- A.14. Sulfur Dioxide.** As determined by the continuous emissions monitoring system (CEMS), the emission limit for sulfur dioxide (SO₂) contained in the gases discharged to the atmosphere is 29 parts per million by volume (ppmv) or 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. Compliance with this emission limit is based on a 24-hour daily geometric mean. [Rule 62-204.800(9)(b)3.e., F.A.C.; 40 CFR 60.33b(b)(3)(i); and, PSD-FL-108A, specific condition 3.i. & Permit No. 0990234-015-AC/PSD-FL-108H, specific condition 17.d.]
- A.15. Hydrogen Chloride.** The emission limit for hydrogen chloride (HCl) contained in the gases discharged to the atmosphere is 25 parts per million by volume or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. [Rule 62-204.800(9)(b)3.f., F.A.C.; 40 CFR 60.33b(b)(3)(ii); and, PSD-FL-108A, specific condition 3.j.]
- A.16. Dioxin/Furan.** The emission limit for dioxin/furan (D/F) contained in the gases discharged to the atmosphere from designated facilities that do not employ an electrostatic precipitator-based emission control system is 30 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen. [Rule 62-204.800(9)(b)3.g., F.A.C.; 40 CFR 60.33b(c)(1)(iii); and, 0990234-021-AC/PSD-FL-108J]
- A.17. Nitrogen Oxides.** As determined by the CEMS, the emission limit for nitrogen oxides (NO_x) contained in the gases discharged to the atmosphere from a refuse derived fuel type municipal waste combustor technology is 250 parts per million by volume, corrected to 7 percent oxygen, dry basis. Compliance with this emission

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limit is based on the 24-hour daily arithmetic average of the hourly emission concentrations using continuous emission monitoring system outlet data. Emissions averaging pursuant to 40 CFR 60.33b(d)(1) shall be allowed. 40 CFR 60.33b(d)(2) shall not apply. [Rule 62-204.800(9)(b)3.h., F.A.C.; 40 CFR 60.33b(d); and, PSD-FL-108A, specific condition 3.b. & Permit No. 0990234-015-AC/PSD-FL-108H, specific condition 17.d.]

A.18. Carbon Monoxide. As determined by the CEMS:

- a. the emission limit for carbon monoxide (CO) contained in the gases discharged to the atmosphere from a refuse derived fuel stoker type municipal waste combustor technology is 200 parts per million by volume (ppmvd), measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent oxygen, dry basis, and calculated on a 24-hour block average. Calculated as an arithmetic average. [Rule 62-204.800(9)(b)3.i., F.A.C.; 40 CFR 60.34b(a); and, Permit No. 0990234-015-AC/PSD-FL-108H, specific condition 17.d.]
- b. CO emissions shall not exceed 400 ppmvd, corrected to 7 percent oxygen, dry basis, and calculated on a 4-hour block average. [Permit No. 0990234-015-AC/PSD-FL-108H, specific conditions 3.c. & 17.d.]

A.19. Volatile Organic Compounds. Volatile organic compound (VOC) emissions shall not exceed 1.6×10^{-2} lb/MMBtu. [PSD-FL-108A, specific condition 3.h.]

Fugitive Ash Emissions

A.20. (This condition only applies to the ash conveying systems of E.U. ID No. 019.) Fugitive Ash Emissions.

- a. No owner or operator of an affected facility shall cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour period), as determined by EPA Reference Method 22 observations as specified in 40 CFR 60.58b(k), except as provided in paragraphs b. and c.
- b. The emission limit specified in paragraph a. does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified in paragraph a. does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.
- c. The provisions of paragraph a. do not apply during maintenance and repair of ash conveying systems. [Rule 62-204.800(9)(b)6., F.A.C.; and, 40 CFR 60.36b and 40 CFR 60.55b.]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C., cannot vary any requirement of an EG, NSPS or NESHAP provision.

A.21. Excess Emissions Allowed - Startup, Shutdown or Malfunction. Excess emissions resulting from startup, shutdown or 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 two hours in any 24 hour period unless specifically authorized by the Department for longer duration. The Department authorizes three hours per occurrence in any 24-hour period for these emissions units. A malfunction means any unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. [Rules 62-210.700(1) & (5), F.A.C. and PSD-FL-108A, specific condition 15.]

A.22. Excess Emissions Prohibited. Excess emissions which are 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.]

A.23. Carbon Monoxide. For the purpose of compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a), if a loss of boiler water level control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence. [40 CFR 60.38b & 40 CFR 60.58b(a)(1)iii.]

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Continuous Monitoring Requirements

{Permitting note: The following continuous monitors are installed on these emissions units: steam flow, urea injection rate, ACI rate, inlet temperature to the fabric filter, opacity, SO₂, NO_x, CO and carbon dioxide (CO₂).}

- A.24. Steam Flow Meter.** The owner or operator shall calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; to measure steam (or feedwater) flow in kilograms per hour (or lbs/hour) on a continuous basis; and record the output of the monitor. Steam (or feedwater) flow shall be calculated in 4-hour block arithmetic averages. [Rule 62-213.440, F.A.C.; 40 CFR 60.34b, 40 CFR 60.53b & 40 CFR 60.58b(i)(6); and, PSD-FL-108A.]
- A.25. Urea Injection Rate.** The permittee shall calibrate, operate and maintain a CMS to continuously monitor and record the urea injection rate of each SNCR system. [0990234-015-AC/PSD-FL-108H]
- A.26. ACI Rate.** The permittee shall calibrate, operate and maintain a CMS to continuously monitor and record the ACI injection rate of each ACI system. [0990234-015-AC/PSD-FL-108H]
- A.27. Inlet Temperature to Particulate Matter Control Device.** The owner or operator shall calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each particulate matter control device utilized. Temperature shall be calculated in 4-hour block arithmetic averages. [Rule 62-213.440, F.A.C.; 40 CFR 60.34b, 40 CFR 60.53b & 40 CFR 60.58b(i)(7); and, 0990234-015-AC/PSD-FL-108H]
- A.28. Continuous Emissions Monitoring Systems (CEMS) Required.** The owner or operator shall calibrate, operate and maintain continuous emissions monitoring systems (CEMS) for monitoring opacity, sulfur dioxide (SO₂), nitrogen oxides (NO_x) and carbon monoxide (CO). [Rule 62-213.440, F.A.C.; and, 40 CFR 60.38b; 40 CFR 60.58b(c)(8) (opacity); 40 CFR 60.58b(e)(5) (SO₂); 40 CFR 60.58b(h)(4) (NO_x) & 40 CFR 60.58b(i)(3) (CO).]
- A.29. Oxygen (O₂) or Carbon Dioxide (CO₂) CEMS.** The owner or operator shall calibrate, maintain, and operate a continuous emission monitoring system (CEMS) for measuring the oxygen or carbon dioxide content of the flue gas at each location where carbon monoxide, sulfur dioxide, or nitrogen oxides emissions are monitored and record the output of the system. [Rule 62-213.440, F.A.C. and 40 CFR 60.38b, & 40 CFR 60.58b(b).]

Test Methods and Procedures

- A.30. Test Methods.** Required tests shall be performed in accordance with the following reference methods:

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Methods 5	Methods for Determining PM Emissions
EPA Methods 6, 6A, 6C or 8	Methods for Determining SO ₂ Emissions
EPA Method 7, 7A, 7B, 7C, 7D or 7E	Determination of NO _x Emissions
EPA Method 9	Visual Determination of the Opacity of Emissions (VE)
EPA Method 10, 10A or 10B	Determination of CO Emissions
EPA Method 12	Determination of Pb Emissions
EPA Method 19	Determination of "F" factors used in determining heating value of RDF

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Method(s)	Description of Method(s) and Comment(s)
EPA Method 22	Visual Determination of Fugitive Emissions from Material Sources
EPA Method 23	Measurement of D/F Emissions. Authorized to omit methylene chloride rinse. ¹
EPA Method 25 or 25A	Determination of VOC Emissions
EPA Method 26 or 26A	Determination of HCl Emissions from Stationary Sources. Changes were approved to the EPA Method 26 testing methodology. ²
EPA Method 29	Determination of Metal (e.g., Cd, Hg and Pb) Emissions from Stationary Sources
EPA Method 101A	Determination of Hg Emissions

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.; Rule 62-204.800(9)(b)7., F.A.C.; PSD-FL-108A; ¹ Appendix ATP, U.S. EPA Alternative Test Procedure Approval dated June 3, 2004; and, ² Permit No. 0990234-019-AC/PSD-FL-108I.]

- A.31. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- A.32. Annual Compliance Test.** The owner or operator shall conduct a performance test for PM, opacity, Cd, Hg, Pb and D/F emissions on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period). For each required cadmium, dioxin/furan, lead, mercury, and PM test run, the permittee shall also record and report the actual ACI rate, lime injection rate, and temperature data for the fabric filter system. The owner or operator shall conduct a performance test for HCl emissions on an annual basis. For each required hydrochloric acid test run, the permittee shall also record and report the actual lime injection rate. [Rule 62-297.310(8), F.A.C. [Rules 62-297.310(7) & 62-204.800(9)(b)7., F.A.C. and PSD-FL-108A, specific condition 4. and PSD-FL-108H.]
- A.33. VOC Emission Testing.** Compliance with the VOC limit shall be demonstrated by compliance with both Carbon Monoxide limits in lieu of stack testing, but should the Department feel the VOC limit is not being met, a special compliance test could be required. [Permit No. 0990234-021-AC/PSD-FL-108J.]
- A.34. Dioxins/Furans.** The alternative performance testing schedule for dioxins/furans (D/F) specified in 40 CFR 60.58b(g)(5)(iii) (See Appendix 40 CFR 60, Subpart Eb) shall apply to municipal waste combustor plants that achieve a dioxin/furan emission level less than or equal to **15** nanograms per dry standard cubic meter, corrected to 7 percent oxygen. [Rule 62-204.800(9)(b)7.b, F.A.C.]
- A.35. HCl Emission Testing.** EPA Method 26 shall be used for the determination of hydrochloric acid concentration or other methods approved by DEP and EPA. The permittee may modify the EPA Method 26 sampling train as follows: full-size (Greenburg-Smith design) impingers may be used in lieu of midjet impingers; and, the two sodium hydroxide (NaOH) impingers may be replaced with one empty impinger. [Permit No. 0990234-019-AC/PSD-FL-108I, specific condition 4.i.]
- A.36. Mercury Testing Frequency.** The Department's Order Granting Variance dated August 25, 1997, is a part of this permit. The variance allows the facility to test mercury emissions annually provided each future annual test demonstrates compliance. The order contains additional terms. If compliance is not demonstrated

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by each annual test, the Department retains the right to reinstate quarterly testing. The variance does not apply to any other new or existing state or federal rule which may require more frequent mercury testing. [Rule 62-296.416(3)(a)3., F.A.C.; and, Order Granting Variance dated August 25, 1997.]

{Permitting note: 40 CFR 60, Subpart Cb requires annual Hg testing.}

- A.37. RDF Analysis.** During compliance stack tests, the RDF shall be analyzed by at least two separate labs, approved by the Department, using split samples for the Btu and moisture contents. [PSD-FL-108A, specific condition 12.]

Recordkeeping and Reporting Requirements

- A.38. Reporting Schedule.** The following reports shall be submitted to the Compliance Authority:

Report	Reporting Deadlines	Related Conditions
Excess Emissions from Malfunctions, if requested by the Compliance Authority	Every 3 months (quarter)	A.39.
NSPS Excess Emissions and Monitoring System Performance	Every 6 months (semi-annual), except when more frequent reporting is specifically required	A.49.
EG Cb (Eb) Annual Report	Every 6 months (semi-annual)	A.47 & 48. Appendix Cb/Appendix Eb - 40 CFR 60.59b(g)
EG Cb (Eb) Semi-Annual Report	Every 6 months (semi-annual)	A.47 & 48. Appendix Cb/Appendix Eb - 40 CFR 60.59b(h)

[Rule 62-210.700(6), F.A.C.; 40 CFR 60, Subparts A, Cb & Eb.]

- A.39. Excess Emissions from Malfunctions.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Compliance Authority in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Compliance Authority. [Rule 62-210.700(6), F.A.C.]
- A.40. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]
- A.41. Records of Non-MSW.** The facility owner or operator shall prepare and maintain records concerning the description and quantities of all segregated loads of non-MSW material which are received and used as fuel at the facility, and subject to a percentage weight limitation (see Specific Conditions **A.5.e.** and **A.5.f.**). The following records shall be prepared and maintained to demonstrate compliance with the segregated non-MSW percentage limitations:
- Segregated Loads of non-MSW Materials.** Each segregated load of non-MSW materials, that is subject to the percentage weight limitations (see Specific Conditions **A.5.e.** and **A.5.f.**), which is received for processing shall be documented as to the description and weight of the waste. The weight of all waste materials received for processing shall be measured using the facility truck scale and recorded.
 - Waste Tires.** Each day the total weight of segregated tires received shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of tires shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied

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by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 3% limitation.

- c *Non-MSW Material.* Each day the total weight of segregated non-MSW materials received that are subject to the 5% restriction shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of segregated non-MSW materials subject to the 5% restriction shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% limitation.

[Rules 62-4.070(1), (3), 62-213.410 & 62-213.440, F.A.C.]

- A.42. Daily Waste Logs Required.** The permittee shall maintain a daily log of the municipal solid waste received. Such a log must record, at a minimum, the amount of waste, the time, and the type of waste received. [PSD-FL-108A, specific condition 18. and Rule 62-213.440, F.A.C.]

- A.43. Reporting and Recordkeeping.** The reporting and recordkeeping requirements applicable to each municipal waste combustor unit subject to Rule 62-204.800(9)(b), F.A.C., shall be the same as set forth in 40 CFR 60.59b, except for the siting requirements under 40 CFR 60.59b(a), (b)(5) and (d)(11). See Appendix 40 CFR 60, Subpart Eb. [Rule 62-204.800(9)(b)7.b, F.A.C.]

Operator Practices, Training and Certification

- A.44. Operating Practices.** The owner or operator shall comply with the operating practices as set forth in 40 CFR 60.53b(b) and (c). [Rule 62-204.800(9)(b)4., F.A.C.; and, 40 CFR 60.34b & 40 CFR 60.53b.]

- A.45. Operator Training and Certification.** The owner or operator shall comply with the operator training and certification requirements of 40 CFR 60.54b. Compliance with these requirements shall be conducted according to the schedule specified in 40 CFR 60.39b(c)(4). [Rule 62-204.800(9)(b)5., F.A.C.; and, 40 CFR 60.35b & 40 CFR 60.54b.]

EG 40 CFR 60, Subpart Cb Requirements

- A.46. EG Requirements - General Applicability and Definitions.** These emissions units shall comply with all applicable requirements of 40 CFR 60, Emission Guidelines and Compliance Times which have been adopted by reference in Rule 62-204.800(9), F.A.C., except that the term “Administrator,” when used in any provision of 40 CFR 60 that is delegated to the Department by the U.S. Environmental Protection Agency, shall mean the Secretary or the Secretary’s designee. [Rule 62-204.800(9)(a), F.A.C.]

{Permitting note: Pursuant to Rule 62-204.800(9)(a)1., F.A.C., the Emission Guidelines for Existing Sources shall be controlling over other standards in the air pollution rules of the Department except that any emissions limiting standard contained in or determined pursuant to the air pollution rules of the Department which is more stringent than one contained in an Emission Guideline, or which regulates emissions of pollutants or emissions units not regulated by an applicable Emission Guideline, shall apply.}

- A.47. EG Requirements - Subpart Cb.** These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart Cb, Emissions Guidelines (EG) and Compliance Times for Large Municipal Waste Combustors, which have been adopted and incorporated by reference in Rule 62-204.800(9), F.A.C. These emissions units shall comply with Appendix 40 CFR 60 Subpart Cb included with this permit. [Rule 62-204.800(9)(b), F.A.C.]

NSPS 40 CFR 60, Subpart A & Eb Requirements

{Permitting notes: The EG 40 CFR 60, Subpart Cb, cross references conditions (applicable requirements) that are contained in the NSPS 40 CFR 60, Subparts A and Eb.}

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emission Units 001, 002 & 019

PBREF-1: Municipal Solid Waste Boiler Nos. 1 & 2 and Ash Building and Handling System

- A.48.** NSPS Requirements - Subpart Eb. Except as otherwise provided in this permit, these emissions units shall comply with all applicable provisions of 40 CFR 60, Subpart Eb, Large Municipal Waste Combustors, adopted and incorporated by reference in Rule 62-204.800(8)(b), F.A.C.; except that the Secretary is not the Administrator for purposes of the authorities cited at 40 CFR 60.50b(n). These emissions units shall comply with all applicable provisions of Appendix 40 CFR 60 Subpart Eb included with this permit. [Rule 62-204.800(8)(b)7., F.A.C.]
- A.49.** NSPS Requirements - Subpart A. This emissions unit shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:
- 40 CFR 60.7, Notification and Recordkeeping
 - 40 CFR 60.8, Performance Tests
 - 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
 - 40 CFR 60.12, Circumvention
 - 40 CFR 60.13, Monitoring Requirements
 - 40 CFR 60.19, General Notification and Reporting Requirements,
- which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C.; except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. This emissions unit shall comply with all applicable provisions of Appendix 40 CFR 60 Subpart A included with this permit. [Rule 62-204.800(8)(d), F.A.C.]

Other Requirements

- A.50.** Acid Rain Part Application. For any unit which is a solid waste incinerator, burning less than 20 percent fossil fuel as described in 40 CFR 72.6(b)(7), adopted and incorporated by reference at Rule 62-204.800, F.A.C., the designated representative of the source containing the unit shall submit a complete Acid Rain Part application governing such unit to the Department before March 1st of the year following the three calendar year period in which the incinerator consumed 20 percent or more fossil fuel on a British thermal unit (BTU) basis. [Rule 62-214.320(1)(g), F.A.C.]

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SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emission Units 024, 025, 026, 027, 028, 030, 034

PBREF-2: Municipal Waste Combustor - Unit Nos. 3, 4, 5, Lime Storage Silos A & B, Activated Carbon Storage Silo, and Ash Handling System and Building

The specific conditions in this section apply to the following emissions unit(s):

E.U. ID No.	Brief Description
<i>Palm Beach Renewable Energy Facility No. 2 (PBREF-2)</i>	
	<i>Municipal Waste Combustors</i>
024	Municipal Waste Combustor - Unit No. 3
025	Municipal Waste Combustor - Unit No. 4
026	Municipal Waste Combustor - Unit No. 5
027	Lime Storage Silo A
028	Lime Storage Silo B
030	Activated Carbon Storage Silo
034	Ash Handling System and Building

Municipal Waste Combustor Nos. 3, 4 & 5 are collectively referred to as the Palm Beach Renewable Energy Facility No. 2 (PBREF-2) and are described below:

Description: Emission unit ID Nos. 024, 025 and 026 are each a 1,000 TPD mass burn municipal waste combustor (MWC) unit, each with a fossil fuel fired auxiliary burner system. The natural gas-fired burner systems are used as needed during periods of startup, shutdown and for flame stabilization. Each MWC unit produces high pressure, high temperature (HPHT) steam that is used in a single steam turbine generator (STG) to generate 90 to 100 MW of electrical power.

Fuels: The primary boiler fuel for each MWC unit is municipal solid waste (MSW) and the other fuels as specified in this subsection. Natural gas is used as a startup, shutdown and flame stabilization fuel in the auxiliary burner system.

Steam Capacity: The maximum steam production limit per unit on a 4-hour block average basis is 320,100 lb steam/hr.

Heat Input: The heat input required to generate the maximum steam capacity is approximately 458 million British thermal units per hour (MMBtu/hr). The maximum heat input limit for the natural gas burner system for each MWC unit is 167 MMBtu/hr during periods of startup, shutdown and for flame stabilization.

Controls for each MWC: The air pollution control systems consist of good combustion practices (GCP), spray dryer (SD), Fabric Filter (FF), carbon injection (CI), selective catalytic reduction (SCR) and use of inherently clean natural gas as a startup, shutdown and flame stabilization fuel in the MWC.

Stack Parameters for each MWC: Each of the MWC units have a separate exhaust flue. The exhaust flues are co-located and contained in a common outer stack. Each stack flue is approximately 8.1 feet in diameter (maximum) and 310 feet tall (minimum). Exhaust from each flue exits the stack at the following approximate conditions: an exit temperature of 285 °F and a volumetric flow rate of 184,310 actual cubic feet per minute (acfm).

Continuous emissions and opacity monitoring systems (CEMS, COMS): Emissions of carbon monoxide (CO), nitrogen oxides (NO_x), and sulfur dioxide (SO₂) from each MWC unit and mercury (Hg) from one of the MWC units will be monitored and recorded by CEMS. Opacity (VE) from each unit will be monitored and recorded by a COMS.

Applicability of 40 CFR Subpart Eb (NSPS Subpart Eb): Each MWC unit is subject to NSPS Subpart Eb - Standards of Performance for Large Municipal Waste Combustors.

{Permitting Note: These emission units are subject to BACT determinations for NO_x, CO, SO₂, PM, VOC, MWC

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acid gases as SO_2 +hydrogen chlorides (HCl), MWC organics as dioxin/furans (D/F), and MWC metals as PM, as implemented in Permit No. 0990234-032-AC/PSD-FL-413C. E.U. ID No. 024 commenced initial operation on 02/24/2015, E.U. ID No. 025 commenced initial operation on 03/21/2015, and E.U. ID No. 026 commenced initial operation on 04/12/2015.}

{Permitting Note: Unless otherwise specified in a specific condition of this subsection, the descriptions above under Description and Steam Capacity are not operating limitations.}

Equipment

- B.1. MWC Units.** The permittee is authorized to operate three MWC stoker boiler units, each with a natural gas burner system, overfire air ports, steam drum, superheater, economizer, air heater, ash hoppers, ducts, fuel feeding equipment, dry cooling towers, air pollution control equipment and other associated equipment. [Permit No. 0990234-032-AC/PSD-FL-413C.]
- B.2. Aqueous Ammonia or Urea Storage Tank.** The permittee is authorized to operate a nominal 30,000 gallon or smaller tank to store aqueous ammonia or urea for the SCR systems. In accordance with 40 CFR 68.130, the storage of aqueous ammonia or urea shall comply with all applicable requirements of the Chemical Accident Prevention Provisions in 40 CFR 68. [Permit No. 0990234-032-AC/PSD-FL-413C.]

Essential Potential to Emit (PTE) Parameters

- B.3. Permitted Capacity.**
- Heat Input from Fossil Fuels.** The maximum heat input capacity from natural gas for each MWC unit on a steady state basis during boiler startup, shutdown and flame stabilization shall be limited to 167 MMBtu/hr.
 - Steam Production Limits.** For each MWC unit, the maximum allowable steam production rate is 320,100 lb/hr (4 hour block average basis).
 - Maximum Demonstrated MWC Unit Load.** The maximum demonstrated MWC unit load shall be determined during the initial performance test for D/F and each subsequent performance test during which compliance with the D/F emission limit is achieved. The maximum demonstrated MWC unit load shall be the highest 4-hour arithmetic average load based on steam production achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved. Unit load means the steam load of the MWC measured as specified in 40 CFR 60.58b(I)(6). Each unit shall not operate at a load level greater than the steam production rate given in paragraph b. of this condition or, if it is less, 110% of the unit's "maximum demonstrated unit load". Higher loads, within the limit in paragraph b. of this condition, are allowed for testing purposes as specified in 40 CFR 60.53b(b).

See 40 CFR 60.58b(j) of Appendix 40 CFR 60, Subpart Eb for additional restrictions on capacity.

[40 CFR 60.34b(b), 60.51b, 60.53b(b) & 60.58b(i)(6); and, Permit No. 0990234-032-AC/PSD-FL-413C.]

- B.4. Emissions Unit Operating Rate Limitation After Testing.** See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. See the "maximum demonstrated municipal waste combustor unit load" provisions of 40 CFR 60.51b for additional restrictions on operating rate. [Rule 62-297.310(2), F.A.C.; and, 40 CFR 60.51b.]

- B.5. Methods of Operation - MWC Boiler Unit Fuels.** Each MWC boiler unit is authorized to combust MSW and other fuels authorized in Specific Condition **B.7.** of this subsection. In addition, each MWC unit is authorized to combust natural gas as a startup, shutdown and flame stabilization fuel. [Permit No. 0990234-032-AC/PSD-FL-413C.]

B.6. Prohibited Fuels.

- The facility shall not burn:
 - (1) Those materials that are prohibited by state or federal law;

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- (2) Those materials that are prohibited by this permit;
- (3) Lead acid batteries;
- (4) Hazardous waste;
- (5) Nuclear waste;
- (6) Radioactive waste;
- (7) Sewage sludge;
- (8) Explosives; and
- (9) Beryllium-containing waste, as defined in 40 CFR 61, Subpart C. *{The U.S. EPA letter dated April 6, 2000 (see attached), on 40 CFR 61, Subpart C further addresses the applicability of this federal regulation with regard to beryllium-containing waste(s).}*

b. Further, the facility shall not knowingly burn:

- (1) Nickel-cadmium batteries pursuant to Section 403.7192 (3);
- (2) Mercury containing devices and lamps pursuant to Sections 403.7186(2), and (3);
- (3) Untreated biomedical waste from biomedical waste generators regulated pursuant to Chapter 64E-16, F.A.C., and from similar generators (or sources);
- (4) Segregated loads of biological waste; and
- (5) Copper Chromated Arsenate (CCA) treated wood.

[Permit No. 0990234-032-AC/PSD-FL-413C.]

B.7. Authorized Fuels. The primary fuel for the facility is MSW, including the items and materials that fit within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), F.S. (1995). Subject to the limitations contained in this permit, the authorized fuels for the facility also include the other solid wastes that are not MSW which are described below. Fuels or wastes specifically authorized herein do not require prior Department approval before combustion.

a. Subject to the conditions and limitations contained in this permit, the following other solid waste may be used as fuel at the facility:

- (1) Confidential, proprietary or special documents (including but not limited to business records, lottery tickets, event tickets, coupons and microfilm);
- (2) Contraband which is being destroyed at the request of appropriately authorized local, state or federal governmental agencies, provided that such material is not an explosive, a propellant, a hazardous waste, or otherwise prohibited at the facility. For the purposes of this section, contraband includes but is not limited to drugs, narcotics, fruits, vegetables, plants, counterfeit money, and counterfeit consumer goods;
- (3) Wood pallets, clean wood, and land clearing debris;
- (4) Packaging materials and containers;
- (5) Clothing, natural and synthetic fibers, fabric remnants, and similar debris, including but not limited to aprons and gloves; or
- (6) Rugs, carpets, and floor coverings, but not asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings.

b. Subject to the conditions and limitations contained in this permit, waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis in accordance with Specific Condition **B.34.** of this subsection.

c. Subject to the conditions and limitations contained in this permit, the following other solid waste materials may be used as fuel at the facility (i.e. the following are authorized fuels that are non-MSW material). The total (cumulative) quantity of the following non-MSW material received as segregated loads and burned at the facility shall not exceed 20%, by weight, of the facility's total fuel and, except as specifically provided below, none of the following materials individually shall exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis in

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accordance with Specific Condition **B.34.** of this subsection. The Department's prior approval is not required to use the following materials as fuel, subject to the conditions and limitations contained in this permit.

- (1) Construction and demolition debris.
 - (2) Oil spill debris from aquatic, coastal, estuarine or river environments. Such items or materials include but are not limited to rags, wipes, and absorbents.
 - (3) Items suitable for human, plant or domesticated animal use, consumption or application where the item's shelf-life has expired or the generator wishes to remove the items from the market. Such items or materials include but are not limited to off-specification or expired consumer products, pharmaceuticals, medications, health and personal care products, cosmetics, foodstuffs, nutritional supplements, returned goods, and controlled substances.
 - (4) Consumer-packaged products intended for human or domesticated animal use or application but not consumption. Such items or materials include but are not limited to carpet cleaners, household or bathroom cleaners, polishes, waxes and detergents.
 - (5) Waste materials that:
 - (a) are generated in the manufacture of items in paragraphs c.(3) or c.(4), above and are functionally or commercially useless (expired, rejected or spent); or
 - (b) are not yet formed or packaged for commercial distribution. Such items or materials must be substantially similar to other items or materials routinely found in MSW.
 - (6) Waste materials that contain oil from:
 - (a) the routine cleanup of industrial or commercial establishments and machinery; or
 - (b) spills of virgin or used petroleum products. Such items or materials include but are not limited to rags, wipes, and absorbents.
 - (7) Used oil and used oil filters. Used oil containing a polychlorinated biphenyls (PCB) concentration equal or greater than 50 parts per million (ppm) shall not be burned, pursuant to the limitations of 40 CFR 761.20(e).
 - (8) Materials for witnessed destruction. These materials consist of the products and goods that are identified in paragraphs c.(3), c.(4) and c.(5), above.
 - (9) Waste materials generated by manufacturing, industrial or agricultural activities, provided that these items or materials are substantially similar to items or materials that are found routinely in MSW.
 - (10) Biosolids. Biosolids are defined in 62-640.200(6), F.A.C., to mean the residues generated from the treatment of domestic wastewater at domestic wastewater treatment facilities. Note that "liquid biosolids" as defined in 62-640.200(28), F.A.C., (i.e. biosolids that are less than 12% solids by weight, or that are determined to contain free liquids as defined by Methods 9095B (Paint Filter Liquids Test)) are not authorized fuels.
 - (11) Livestock waste as a maximum quantity not to exceed 10%, by weight, of the facility's total fuel. Livestock waste means the material that has been used for livestock bedding and sanitary purposes in barns and stables. Livestock waste typically is comprised of straw, wood shavings (sawdust), hay, waste animal feed, and similar materials. Such waste contains the excreta of animals.
 - (12) Waste processing residue from ethanol production. Such material contains the undigested organics, lignins, celluloses, and plastics remaining from the anaerobic digestion treatment processes used on various waste streams including MSW, vegetative and woody waste, and biosolids.
 - (13) Waste gasification process residue. Such material is the "char" or carbonaceous material remaining from the low- to medium-temperature processes used to gasify various waste streams including MSW, vegetative and woody waste, and biosolids.
- d. The following materials are also authorized fuels at the facility.
- (1) The combustible residue generated when recycling construction and demolition debris. Such materials include wood, plastic, paper, packaging materials, and similar combustible materials, but may also include incidental amounts of noncombustible material (e.g. concrete).

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- (2) The residue generated when processing MSW to make refuse-derived fuel.
 - (3) The residue generated when processing recovered materials in a recovered materials processing facility, as those terms are defined in Rules 62-701.200(95) and (96), F.A.C., respectively.
 - (4) The residue generated when processing recyclable materials at a materials recovery facility, as those terms are defined in Rules 62-701.200(98) and (71), F.A.C., respectively.
- [Permit No. 0990234-032-AC/PSD-FL-413C.]

B.8. Segregated Loads. The fuel may be received either as a mixture or as a single-item stream (segregated load) of discarded materials. If the facility intends to use an authorized fuel that is a segregated non-MSW material, the fuel shall be either:

- a. well mixed with MSW in the refuse pit; or
- b. alternately charged with MSW in the hopper.

[Permit No. 0990234-032-AC/PSD-FL-413C.]

B.9. Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Permit No. 0990234-032-AC/PSD-FL-413C.]

Control Technology

B.10. Air Pollution Control Equipment. The permittee shall have installed and shall maintain and operate the following add-on air pollution control equipment on each MWC unit:

- a. *SD/FF Baghouse System.* The permittee shall design, install, operate and maintain a SD/FF baghouse system. The SD/FF baghouse system shall be brought on line in accordance with the manufacturer's procedures and guidelines and will be utilized whenever the MWC unit is in operation and burning MSW.
- b. *SCR System.* The permittee shall design, install, operate, and maintain an ammonia (NH₃) or urea based SCR system including reagent storage tank, pumps, metering system, injection grid, reactor and catalyst to reduce NO_x emissions in the flue gas exhaust and achieve the NO_x emissions limit specified in this subsection. The SCR shall be brought on line in accordance with the SCR manufacturer's procedures and guidelines and shall be utilized whenever the MWC unit is in operation and burning MSW. The SCR system also represents BACT for D/F emissions.
- c. *SNCR System.* The permittee may install, operate, and maintain an NH₃ or urea based SNCR system including reagent storage tank, pumps, metering system and injection equipment to reduce NO_x in the furnace prior to further downstream treatment by the SCR system.
- d. *Activated CI System and FF Baghouse.* The permittee shall install, operate and maintain an activated CI system and FF baghouse (same baghouse used for SD) to capture the spent carbon. The CI system and FF baghouse shall be designed, constructed and operated to achieve the Hg and other metals emission limits specified in this subsection. The CI system shall be brought on line in accordance with the manufacturer's procedures and guidelines and will be utilized whenever the MWC unit is in operation and burning MSW.
- e. *Circumvention.* The permittee shall not circumvent the air pollution control equipment or allow the emissions of air pollutants without this equipment operating properly.

[Rule 62-210.650, F.A.C.; 40 CFR 60, Subpart Db and Permit No. 0990234-032-AC/PSD-FL-413C.]

B.11. Combustion Practices. To ensure that the facility's fuel does not adversely affect the facility's combustion process or emissions, the facility operator shall:

- a. Comply with good combustion operating practices in accordance with 40 CFR 60.53b;
- b. Operate and maintain CEMS for oxygen, CO, SO₂, NO_x and temperature in accordance with 40 CFR 60.58b; and,
- c. Record and maintain the CEMS data in accordance with 40 CFR 60.59b.

These steps shall be used to ensure and verify continuous compliance with the emissions limitations in this permit. Natural gas may be used as fuel during boiler startup, shutdown and flame stabilization, and at other

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times when necessary and consistent with good combustion practices. [Permit No. 0990234-032-AC/PSD-FL-413C.]

NSPS Applicability

B.12. NSPS Subparts Eb & A Applicability. Each MWC unit, including the shared steam turbine generator (STG), are subject to all applicable requirements of 40 CFR 60, Subpart Eb, which applies to Large Municipal Waste Combustors and Subpart A, General Provisions. The applicable conditions are given in Appendices A and Eb of this permit. [Rule 62-204.800(7)(b); 40 CFR 60, Subparts A & Eb; and, Permit No. 0990234-032-AC/PSD-FL-413C.]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Condition **B.13.** are based on the specified averaging time of the applicable test method.

B.13. Emissions from each MWC unit (E.U. ID Nos. 024, 025 & 026) shall not exceed the following standards/limits:

Air Pollutant	Emission Standard/Limit ¹	lb/hour ²	Basis
NO _x	50 ppmvd - 24 hour block arithmetic mean	37.4	BACT
	45 ppmvd - 12 month rolling average		BACT
CO	100 ppmvd - 4 hr block arithmetic mean	45.5	Subpart Eb
	80 ppmvd - 30-day rolling average		BACT
SO ₂	24 ppmvd - 24 hour geometric mean	25.0	BACT
HCl ³	20 ppmvd	11.9	BACT
VOC (as propane)	7 ppmvd	5.0	BACT
PM/PM ₁₀ /PM _{2.5}	12.0 mg/dscm	4.7	BACT
Lead (Pb)	125 µg/dscm	0.049	Avoid PSD
Hg ⁴	N/A ⁵	37.7 lbs/yr ⁶	Avoid PSD
	25 µg/dscm	0.0098	Applicant Request
Cadmium (Cd)	10 µg/dscm	3.91E ⁻⁰³	Subpart Eb
D/F ⁷	13.0 ng/dscm		Subpart Eb
	10 ng/dscm until completion of initial D/F performance tests		Initial Test
	0.75 to 10 ng/dscm after completion of initial D/F performance tests		BACT
Opacity	10 % – 6 minute average	N/A	BACT Subpart Eb
Ammonia Slip	10 ppmvd	2.76	PM, Opacity

1 All concentration values are corrected to 7% O₂: µg/dscm = micrograms per dry standard cubic meter; mg/dscm = milligrams per dry standard cubic meter; ng/dscm = nanograms per dry standard cubic meter; and ppmvd = part per million dry volume.

2 Mass emission limits reflect maximum values calculated at 110% of 24 hour steam production limit of 291,000 lb steam/hr for each MWC. The 110% steam limit is 320,100 lb steam/hr for each MWC.

3 HCl is not a BACT pollutant. However, it must be limited together with SO₂ because they both comprise MWC-Acid Gases which has its own PSD threshold.

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Air Pollutant	Emission Standard/Limit ¹	lb/hour ²	Basis
4	Within 60 days after achieving the maximum production rate, but not later than 180 days after the initial startup, PBREF-2 shall commence quarterly performance Hg stack test events for the first two years of operation for each MWC exhaust flue to show compliance with the 25 µg/dscm emission limit. The 25 µg/dscm quarterly stack based standard is based on the applicant's request. After the first two years of operation, the stack testing frequency can be reduced to annually to show compliance with the 25 µg/dscm emission limit. By meeting the stack test standard, PBREF-2 will show compliance with Subpart Eb Hg emission standard of 50 µg/dscm.		
5	N/A = not applicable.		
6	The 37.7 lbs/yr emission limit is equivalent to a 12-month average concentration of 12 µg/dscm (conservatively assuming continuous operation 8,760 hours per year). Compliance with this annual limit shall be demonstrated based on quarterly stack testing during the first two years of operation and annually thereafter. The Hg CEMS is required for monitoring Hg emissions from one of the MWC units and must become operational within 60 days after PBREF-2 achieves its maximum production rate, but not later than 180 days after the initial startup. During the first four quarters of Hg CEMS availability, the CEMS must achieve an 80% data availability rate. Subsequently, an 85% data availability rate is required.		
7	Dioxins/furans: Total tetra through octa-chlorinated dibenzo-p-dioxins and dibenzofurans. Until the completion of initial performance tests for D/F described in Specific Condition B.31. of this subsection, the 10 ng/dscm limit applies. Subsequently, the To Be Determined (TBD) limit will be determined by the Department based on initial performance and efficiency tests at the inlet and outlet of the SCR as per Specific Condition B.31. of this subsection. Based on these tests a D/F limit between 10 ng/dscm and 0.75 ng/dscm will be selected by the Department. The pound per hour limit will correspond to TBD ng/dscm limit.		

[Permit No. 0990234-032-AC/PSD-FL-413C.]

Excess Emissions

Specific Conditions **B.14.**, **B.15.** and **B.16.** apply to the State Implementation Plan (SIP)-based emissions standards specified in Specific Condition **B.13.** of this subsection. Rule 62-210.700, F.A.C. (Excess Emissions) cannot vary or supersede any federal provision of an NSPS or Acid Rain programs.

B.14. Excess Emissions Prohibited. Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. All such preventable emissions shall be included in any compliance determinations based on CEMS data. [Rule 62-210.700(4), F.A.C. and Permit No. 0990234-032-AC/PSD-FL-413C.]

B.15. Emission Limit Compliance and Excess Emissions. Because of the long-term nature of the 12-month NO_x concentration limit as part of PSD and the associated BACT determination, all emissions data for this pollutant/averaging time, including periods of startup, shutdown and malfunction, shall be included in compliance determinations based on CEMS data. [Rule 62-210.700(4), F.A.C. and Permit No. 0990234-032-AC/PSD-FL-413C.]

B.16. Excess Emissions Allowed - BACT Limits. The following provisions apply to the NO_x and CO emissions limits given in Specific Condition **B.13.** of this subsection that were specified pursuant to BACT. As specified in this condition, excess emissions resulting from startup, shutdown and documented malfunctions are allowed for the 24-hour NO_x and 30-day CO rolling concentration and mass limit provided that operators employ the best operational practices to minimize the amount and duration of emissions during such incidents. NO_x and CO emission data exclusions resulting from startup, shutdown, or documented malfunctions shall not exceed three hours in any 24-hour period. A "documented malfunction" means a

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malfunction that is documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile transmittal, or electronic mail. [Permit No. 0990234-032-AC/PSD-FL-413C.]

- B.17. Regulations Pursuant to 40 CFR 60, Subpart Eb.** The following provisions apply to the emissions limits given in Specific Condition **B.13.** of this subsection that were specified pursuant to 40 CFR 60, Subpart Eb.
- The opacity standards* set forth in 40 CFR 60 shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard. [40 CFR 60.11(c).]
 - Startup, Shutdown and Malfunction.* Except as provided by 40 CFR 60.56b, the standards under 40 CFR 60, Subpart Eb, as incorporated in Rule 62-204.800(8)(b), F.A.C., apply at all times except during periods of startup, shutdown, or malfunction. Duration of startup or shutdown periods are limited to 3 hours per occurrence, except as provided in 40 CFR 60.58b(a)(1)(iii). During periods of startup, shutdown, or malfunction, monitoring data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of 40 CFR 60.59b(d)(7).
 - The startup period commences when the affected facility begins the continuous burning of municipal solid waste and does not include any warm-up period when the affected facility is combusting fossil fuel or other non-municipal solid waste fuel, and no municipal solid waste is being fed to the combustor.
 - Continuous burning is the continuous, semi-continuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate is not considered to be continuous burning.
[40 CFR 60.58b(a).]
 - Special Provisions for CO.* For the purpose of compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a), if a loss of boiler water level control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence. [40 CFR 60.58b(a)(1)(iii).]
[Permit No. 0990234-032-AC/PSD-FL-413C.]

Monitoring of Operations

- B.18. Pressure Drop.** The permittee shall maintain and calibrate a device which continuously measures and records the pressure drop across each baghouse controlling the PM, sorbent and powdered activated carbon (PAC) emissions for each MWC unit. Records shall be maintained on site and made available upon request. [Permit No. 0990234-032-AC/PSD-FL-413C.]
- B.19. Bag Leak Detection.** The permittee shall maintain continuous operation of bag leak detection systems on each baghouse for each MWC unit including keeping records of the systems measurements. Baghouse leak detection records shall be kept on site and made available upon request. [Permit No. 0990234-032-AC/PSD-FL-413C.]
- B.20. SCR NH₃ or Urea Injection.** In accordance with the manufacturer's specifications, the permittee shall install, calibrate, operate and maintain a flow meter to measure and record the NH₃ or urea injection rate for the SCR system on each MWC unit. The permittee shall document the general range of NH₃ or urea flow rates required to meet the NO_x standard over the range of load conditions by comparing NO_x emissions with NH₃ or urea flow rates. During NO_x CEMS downtimes or malfunctions, the permittee shall operate at an NH₃ or urea flow rate that is consistent with the documented flow rate for the given load condition. Records shall be maintained on site and made available upon request. [Permit No. 0990234-032-AC/PSD-FL-413C.]
- B.21. Activated CI.** In accordance with the manufacturer's specifications, the permittee shall install, calibrate, operate and maintain a mass flow meter or Department approved device to measure and record the activated CI rate (lb/hour) for each MWC unit. The permittee shall document the general range of activated CI mass

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flow rates required to meet the Hg standard over the range of load conditions by comparing Hg emissions with activated CI mass flow rates. Records shall be maintained on site and made available upon request. [40 CFR 60.58(m)(2); and, Permit No. 0990234-032-AC/PSD-FL-413C.]

Continuous Emissions Monitoring Requirements

{Permitting Note: The following continuous monitors are installed on these emissions units: steam flow, inlet temperature to baghouse, opacity, SO₂, NO_x, CO and CO₂ or O₂.}

B.22. Steam Parameters. In accordance with the manufacturer's recommendations, the permittee shall calibrate, operate and maintain continuous monitoring and recording devices for the following parameters on each MWC unit: steam temperature (°F), steam pressure (psig) and steam production rate (lb/hour). Records shall be maintained on site and made available upon request. [Permit No. 0990234-032-AC/PSD-FL-413C.]

B.23. Steam Monitoring. MWC unit load means the steam load of the MWC unit measured as specified in 40 CFR 60.58b(i)(6). The owner or operator shall install, calibrate, maintain, and operate a steam flow meter, shall measure steam flow in pounds of steam per hour on a continuous basis, and record the output of the monitor (in accordance with the ASME method described in 40 CFR 60.58b(i)(6)). Steam flow shall be calculated in a 4-hour block arithmetic average. For each MWC unit, the maximum steam production limit corresponding to maximum demonstrated unit load is 320,100 lb/hr (4 hour block average basis). Higher unit loads are allowed for testing purposes pursuant to 40 CFR 60.53b(b). [Rules 62-204.800(8), F.A.C.; 40 CFR 60.53b(a) & 60.58b(i); and, Permit No. 0990234-032-AC/PSD-FL-413C.]

B.24. CEMS. The permittee shall calibrate, maintain, and operate CEMS to measure and record the emissions of CO, NO_x, and SO₂ from each MWC unit in a manner sufficient to demonstrate continuous compliance with the CEMS emission standards given in Specific Condition **B.13.** of this subsection. The permittee shall also install, calibrate, maintain and operate a single CEMS to measure and record Hg emissions from one of the three MWC units.

- a. **CO CEMS.** CO CEMS shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4 or 4A and shall comply with all requirements of 40 CFR 60.58b. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of Section 7 shall be made each calendar quarter, and reported semiannually to the Compliance Authority. The required RATA tests shall be performed using EPA Method 10 in Appendix A of 40 CFR 60 and shall be based on a continuous sampling train. The CO monitor span values shall be set appropriately, considering the allowable methods of operation and corresponding emission standards.
- b. **NO_x CEMS.** NO_x CEMS shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 2 and shall comply with all requirements of 40 CFR 60.58b. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of Section 7 shall be made each calendar quarter, and reported semiannually to the Compliance Authority. The required RATA tests shall be performed using EPA Method 7E in Appendix A of 40 CFR 60. The monitor span values shall be set appropriately, considering the allowable methods of operation and corresponding emission standards.
- c. **SO₂ CEMS.** SO₂ CEMS shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 2 and shall comply with all requirements of 40 CFR 60.58b. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F. The required RATA tests shall be performed using EPA Method 6C in Appendix A of 40 CFR 60. The SO₂ monitor span values shall be set appropriately, considering the expected range of emissions and corresponding emission standards.
- d. **Hg CEMS.** Hg CEMS shall be certified pursuant to the requirements in Performance Specification 12A (PS-12A), "Specifications and Test Procedures for Total Vapor Phase Mercury Continuous Monitoring Systems in Stationary Sources," or that has passed verification tests conducted under the auspices of the U.S. Environmental Protection Agency's (EPA) Environmental Technology Verification (ETV) Program. The owner or operator shall adhere to the calibration drift and quarterly performance evaluation

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procedures and ongoing data quality assurance procedures in 40 CFR Part 60, Appendix F or 40 CFR Part 75, Appendix B. If the calibration system associated with Hg CEMS is not able to conform to the above referenced data quality assurance procedures, then the owner or operator shall propose alternate quality assurance procedures in a CEMS Operation Plan specifically for the Hg CEMS. The CEMS may be used as the method of demonstrating compliance with the annual mass emission rate.

- e. *Diluent Monitor*: A continuous emission monitoring system for measuring either the oxygen content or the carbon dioxide content of the flue gas at each location where carbon monoxide, sulfur dioxide, nitrogen oxides emissions are monitored shall be installed, calibrated, maintained, and operated in accordance with the requirements of 40 CFR 60.58b.

[Permit Nos. 0990234-032-AC/PSD-FL-413C and 0990234-034-AC (PSD-FL-413D).]

- B.25. Inlet Temperature to Particulate Matter Control Device.** The owner or operator shall calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each particulate matter control device utilized. Temperature shall be calculated in 4-hour block arithmetic averages. [Rule 62-213.440, F.A.C.; and, 40 CFR 60.34b, 40 CFR 60.53b & 40 CFR 60.58b(i)(7).]

- B.26. COMS.** A continuous opacity monitoring system (COMS) shall be installed, calibrated, operated, and maintained in exhaust flue of each MWC unit in a manner sufficient to demonstrate continuous compliance with the opacity standard specified in this section. Opacity shall be based on a 6-minute block average computed from at least one observation (measurement) every 15 seconds. For the COMS, the 6-minute block averages shall begin at the top of each hour. The COMS shall meet the applicable requirements of 40 CFR 60.58b(c)(8). [Permit No. 0990234-032-AC/PSD-FL-413C.]

- B.27. Continuous Flow Monitor:** A continuous flow monitor shall be installed to determine the stack exhaust flow rate to be used in determining mass emission rates. The flow monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 6. [Permit No. 0990234-032-AC/PSD-FL-413C.]

Test Methods and Procedures

- B.28. Test Methods.** When required, tests shall be performed in accordance with the following reference methods:

EPA Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Determination of Particulate Emissions. The minimum sample volume shall be 30 dry standard cubic feet.
6C	Determination of SO ₂ Emissions (Instrumental - note: data from CEMS certified in accordance with 40 CFR 60, Appendix B may be used in lieu of stack tests).
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
8	Measurement of Sulfuric Acid Mist
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources {Note: The method shall be based on a continuous sampling train.}
13A or 13B	Measurement of Fluoride Emissions
18	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography
23	Measurement of Dioxin/Furan Emissions. Authorized to omit methylene chloride rinse. ¹

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EPA Method	Description of Method and Comments
26 or 26A	Determination of Hydrogen Chloride Emissions. The permittee may modify the EPA Method 26 sampling train as follows: full-size (Greenburg-Smith design) impingers may be used in lieu of midget impingers and the two sodium hydroxide (NaOH) impingers may be replaced with one empty impinger.
29	Determination of Metals Emissions from Stationary Sources (Hg, Cd, Pb)
CTM-027	Conditional EPA Test Method 027, Measurement of Ammonia Slip (or equivalent method)

Method CTM-027 is published on EPA's Technology Transfer Network Web Site at "<http://www.epa.gov/ttn/emc/ctm.html>". The other methods are specified in Appendix A of 40 CFR 60, adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. Tests shall be conducted in accordance with the appropriate test method and the applicable requirements specified in this permit, and NSPS Subpart A in 40 CFR 60. [Permit No. 0990234-032-AC/PSD-FL-413C; and, ¹Appendix ATP, U.S. EPA Alternative Test Procedure Approval dated June 3, 2004.]

- B.29. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- B.30. Annual Compliance Testing.** Annual stack tests for each MWC units exhaust flue gas shall be conducted for VOC, HCl, PM/PM₁₀/PM_{2.5}, Pb, Cd, Hg (quarterly during the first two years of operation and annually thereafter), D/F (quarterly during the first one to two years of operation at the inlet and outlet of the SCR and stack flue exhaust and annually thereafter at the stack flue exhaust only), VE and ammonia slip during each calendar year (January 1st to December 31st) to show compliance with the emission limits given in Specific Condition **B.13.** of this subsection. Data collected from the reference method during the required RATA tests for CO, NO_x, SO₂ and Hg (one quarter of four) may be used to satisfy the annual testing requirement provided the notification requirements and emission testing requirements for performance and compliance tests of this permit are satisfied. [Rules 62-296.416, 62-297.310(8)(a) & (b), F.A.C., 40 CFR 60.8 & 60.58b; and, Permit No. 0990234-032-AC/PSD-FL-413C.]
- B.31. Emissions Limit Subject to Revision D/F.** D/F emissions from each MWC shall not exceed the limitation stated in Specific Condition **B.13.** of this subsection. Stack acceptance testing and SCR inlet/outlet D/F destruction testing shall be performed quarterly on each MWC exhaust flue gas during the first one to two years of operation. The permittee shall provide a protocol for the SCR efficiency testing for review and approval by the Department ninety days prior to the commencement of testing. The permittee shall provide the results to the Department within 45 days of completion of the four to eight D/F destruction efficiency and stack tests so that the Department can set a numerical BACT D/F limit based on the performance of the SCR technology.
- The D/F emission limit standard will be between a maximum value of 10 ng/dscm and a minimum value of 0.75 ng/dscm. Between these upper and lower limit values, the limit will be ten times the average of the four to eight quarterly D/F SCR efficiency and stack test results conducted during the first one to two years of PBREF-2 operation. For example, if the average of these tests is 0.50 ng/dscm then the limit will be set by the Department at 5.0 ng/dscm, while if the average of the stack tests is 1.2 ng/dscm then the limit will be set at the upper limit value of 10.0 ng/dscm. A single D/F limit will be established for all three MWC units.
- If the D/F average emissions based on the SCR efficiency and stack tests is 0.05 ng/dscm or less, then the D/F emission limit shall be set at 0.74 ng/dscm as a non-PSD/BACT limit.
- After the first four quarterly stack tests are completed, the permittee may request the Department to set the D/F emission limit based on the results of the first four tests. If the permittee makes this request, the

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Department shall review the test results and decide whether additional testing is necessary to establish a sufficient database for setting the D/F emission limit. Based on its review of the test data, the Department may authorize the permittee to terminate the quarterly testing after the first four quarters, or the Department may require the permittee to conduct a second year of quarterly stack tests for D/F. The Department will notify the permittee of the subsequent D/F emissions limit once it has been determined.

{In accordance with Specific Condition B.3.c. of this subsection NSPS Subpart Eb, only the annual D/F compliance test and not the additional SCR efficiency tests will be used to re-set the maximum demonstrated MWC unit load or other operating parameter levels.}

[40 CFR 60.52b(c); and, Permit No. 0990234-032-AC/PSD-FL-413C.]

B.32. Continuous Compliance: The permittee shall demonstrate continuous compliance with the CO, NO_x and SO₂ concentration and mass emission standards based on data collected by the certified CEMS. The permittee shall demonstrate continuous compliance with the opacity limit based on data collected by the required COMS. [Rule 62-210.200 (BACT), F.A.C.; 40 CFR 60, Subpart Eb; and, Permit No. 0990234-032-AC/PSD-FL-413C.]

Recordkeeping and Reporting Requirements

B.33. Reporting Schedule. The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
Excess Emissions	Every 3 months (quarter)	B.35.
NSPS Excess Emissions and Monitoring System Performance	Every 6 months (semi-annual), except when more frequent reporting is specifically required	B.39. & B.40.
Eb Semi-Annual Report	Every 6 months (semi-annual)	B.39. & B.40. Appendix Eb - 40 CFR 60.59b(g)&(h)

[Rule 62-210.700(6), F.A.C.; 40 CFR 60, Subparts A & Eb.]

B.34. Segregated Solid Waste Record Keeping. The following records shall be made and kept to demonstrate compliance with the segregated non-MSW percentage limitations of Specific Condition **B.7.** of this subsection:

- Each segregated load of non-MSW materials, subject to the percentage weight limitations of Specific Condition **B.7.** of this subsection, which is received for processing, shall be documented as to waste description and weight. The weight of all waste materials received for processing shall be measured and recorded using the facility truck scale.
- Each day the total weight of segregated tires received shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of tires shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% limitation.
- Each day the total weight of segregated non-MSW materials received that are subject to the 20% restriction shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of segregated non-MSW materials subject to the 20% restriction shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 20% limitation.

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- d. Each day the weight of each load of segregated non-MSW material received that is subject to a 5% or 10% individual material restriction shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of each type of segregated load of non-MSW material subject to a 5% or 10% restriction shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% or 10% limitation.

[Permit No. 0990234-032-AC/PSD-FL-413C.]

- B.35. SIP Quarterly Permit Limits Excess Emissions Report.** Within 30 days following the end of each calendar quarter, the permittee shall submit a report to the Compliance Authority summarizing periods of CO and NOx emissions in excess of the BACT permit standards and the amounts of authorized data excluded following the Figure 1 format from NSPS 40 CFR 60, Subpart A. Periods of startup, shutdown and malfunction shall be monitored and recorded at all times. In addition, the report shall summarize the CEMS systems monitor availability for the previous quarter. [Permit No. 0990234-032-AC/PSD-FL-413C.]
- B.36. Annual Operating Report (AOR):** The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. After the first two years of operation of all 3 MWCs, the permittee shall report the quantity in lbs/year/unit and the total lbs/year from all 3 MWC units in the AOR report. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rule 62-210.370, F.A.C. & 62-212.400(12) (Source Obligation, escape PSD BACT for Hg emissions), F.A.C.; and, Permit No. 0990234-032-AC/PSD-FL-413C.]
- B.37. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

Operator Practices, Training and Certification

- B.38. Operator Training and Certification.** The owner or operator shall comply with the operator training and certification requirements of 40 CFR 60.54b of 40 CFR 60, Subpart Eb. Compliance with these requirements shall be conducted according to the schedule specified in 40 CFR 60.39b(c)(4) of 40 CFR 60, Subpart Cb. [Rule 62-204.800(9)(b)5., F.A.C.; and, 40 CFR 60.35b & 40 CFR 60.54b.]

NSPS 40 CFR 60 Requirements

- B.39. NSPS Requirements - Subpart Eb.** Except as otherwise provided in this permit, these emissions units shall comply with all applicable provisions of 40 CFR 60, Subpart Eb, Large Municipal Waste Combustors, adopted and incorporated by reference in Rule 62-204.800(8)(b), F.A.C.; except that the Secretary is not the Administrator for purposes of the authorities cited at 40 CFR 60.50b(n). These emissions units shall comply with all applicable provisions of **Appendix 40 CFR 60 Subpart Eb** included with this permit. [Rule 62-204.800(8)(b)7., F.A.C.]
- B.40. NSPS Requirements - Subpart A.** This emissions unit shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:
40 CFR 60.7, Notification and Recordkeeping
40 CFR 60.8, Performance Tests
40 CFR 60.11, Compliance with Standards and Maintenance Requirements
40 CFR 60.12, Circumvention
40 CFR 60.13, Monitoring Requirements
40 CFR 60.19, General Notification and Reporting Requirements,
which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C.; except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR

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60.13(g), (i) and (j)(2), and 40 CFR 60.16. This emissions unit shall comply with all applicable provisions of **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]

Other Requirements

B.41. Acid Rain Part Application. For any unit which is a solid waste incinerator, burning less than 20 percent fossil fuel as described in 40 CFR 72.6(b)(7), adopted and incorporated by reference at Rule 62-204.800, F.A.C., the designated representative of the source containing the unit shall submit a complete Acid Rain Part application governing such unit to the Department before March 1st of the year following the three calendar year period in which the incinerator consumed 20 percent or more fossil fuel on a British thermal unit (BTU) basis. [Rule 62-214.320(1) (g) , F.A.C.]

E.U. ID No.	Brief Description
<i>Palm Beach Renewable Energy Facility No. 2 (PBREF-2)</i>	
027	Lime Storage Silo A
028	Lime Storage Silo B
030	Activated Carbon Storage Silo

Emission Units 027 and 028 are identical lime storage silos manufactured by Chemco (model No.CECDC300) used to provide the storage of lime for use in the spray dryer absorber control device to reduce acid gas emissions in the flue gas streams from the MWC units.

Emissions Unit 030 is a storage silo manufactured by Mac Process, LLC (model No. 72ST36) for storing activated carbon which is used to provide storage of carbon which is injected into the flue gas streams from the MWC units for control of mercury emissions. Each silo has a storage capacity of 4,000 to 5,000 cubic feet and is equipped with its own low temperature (<180°F) fabric filter baghouse to control particulate matter (PM) emissions. Each baghouse was designed, and is operated and maintained, to achieve a PM mass emission rate of 0.01 grains per dry standard cubic foot (gr/dscf) or less and shall be operated during all silo filling operations.

{Permitting note: During the filling of the lime storage silos, the displaced air is forced through the fabric filter baghouses and discharged through individual stacks that are 118 feet in height and 4.875 feet in diameter at a flow rate of approximately 760 actual cubic feet per minute and at ambient temperature. During the filling of the carbon storage silo, the displaced air is forced through the fabric filter baghouse and discharged through a stack that is 82 feet in height and 9.6 feet in diameter at a flow rate of approximately 910 actual cubic feet per minute and at ambient temperature. All three storage silos commenced initial operation in February of 2015. These storage silos are subject to regulation pursuant to permit No. 0990234-032-AC/PSD-FL-413C, which revised and replaced previous permit Nos. 0990234-017-AC (PSD-FL-413), 0990234-023-AC (PSD-FL-413A) and 0990234-028-AC (/PSD-FL-413B).}

Essential Potential to Emit (PTE) Parameters

B.42. Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Permit No. 0990234-032-AC/PSD-FL-413C.]

Control Technology

B.43. Fabric Filter (FF) Baghouses. Each storage silo is equipped with its own FF baghouse to control PM emissions. Each baghouse shall be designed, operated and maintained to achieve a PM mass emission rate of 0.01 grains per dry standard cubic foot (gr/dscf) or less. The baghouses shall be operated during all silo filling operations. [Permit No. 0990234-032-AC/PSD-FL-413C.]

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Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **B.44. - B.46.** are based on the specified averaging time of the applicable test method.

B.44. FF Baghouse PM Emission Standard. Particulate matter emissions from each storage silo baghouse shall not exceed 0.010 gr/dscf. [Permit No. 0990234-032-AC/PSD-FL-413C.]

B.45. FF Baghouse PM Standard by Opacity Measurement. A visible emission reading of 5% opacity or less may be used to demonstrate compliance with the FF baghouse PM emission standard, above. A visible emission reading greater than 5% opacity will require the permittee to perform a PM emissions stack test within 60 days to show compliance with the PM standard. [Permit No. 0990234-032-AC/PSD-FL-413C ; and Rules 62-297.620(1)-(3) & 62-297.620(4), F.A.C.]

{Permitting Note: The baghouses are designed to control PM emissions to 0.010 gr/dscf. The 5% opacity limitation is consistent with this design and provides reasonable assurance that annual emissions of PM/PM₁₀/PM_{2.5} for emission units will be less than 0.1 TPY.}

B.46. Fugitive Emissions Limits. Fugitive emissions are limited to 10% opacity from any emissions point not controlled by a FF baghouse. [Permit No. 0990234-032-AC/PSD-FL-413C.]

B.47. Best Management Practices to Control Unconfined Emissions of PM. To ensure the emission standards with regard to opacity and PM of this subsection are complied with, the procedures set forth in Specific Condition **FW5.** of Section II. of this permit, "Unconfined Emissions of Particulate Matter," shall be adhered to where practical and cost effective. [Permit No. 0990234-032-AC/PSD-FL-413C.]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an EG, NSPS or NESHAP provision.

B.48. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

B.49. Excess Emissions Prohibited. Excess emissions which are 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.]

Test Methods and Procedures

B.50. Test Methods. When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Determination of Particulate Emissions. The minimum sample volume shall be 30 dry standard cubic feet.
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-204.800, F.A.C.; and, Permit No. 0990234-032-AC/PSD-FL-413C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emission Units 024, 025, 026, 027, 028, 030, 034

PBREF-2: Municipal Waste Combustor - Unit Nos. 3, 4, 5, Lime Storage Silos A & B, Activated Carbon Storage Silo, and Ash Handling System and Building

- B.51. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- B.52. Annual Compliance Demonstrations.** Each emission point shall be tested to demonstrate compliance with the visible emission limits for each emission point during each calendar year (January 1st to December 31st). As specified in Specific Condition **B.45.** of this subsection, a PM test must be conducted on a FF baghouse of a storage silo within 60 days of its failure in meeting the VE standard. [Permit No. 0990234-032-AC/PSD-FL-413C; Rule 62-297.310(8), F.A.C.]

Recordkeeping and Reporting Requirements

- B.53. Baghouse O&M Log.** For each baghouse the permittee shall maintain an operation and maintenance (O&M) plan to address proper operation, parametric monitoring, and a schedule for conducting periodic inspections and preventive maintenance. Baghouse inspections and maintenance activities shall be recorded in a written log. [Permit No. 0990234-032-AC/PSD-FL-413C.]

E.U. ID No.	Brief Description
Palm Beach Renewable Energy Facility No. 2 (PBREF-2)	
034	Ash Handling System and Building

This emissions unit is the ash handling system and building for handling bottom ash from the municipal waste combustor (MWC) units and fly ash from the fabric filter (FF) baghouses. The system includes an enclosed conveyor system to transport collected ash from the boiler and air pollution control buildings to the ash management building. Included inside the ash handling building is an ash processing equipment consisting of ferrous and non-ferrous metal recovery systems. To minimize particulate matter emissions from the ash handling equipment, the permittee operates a wet scrubber through which air from the ash handling building is routed prior to discharge to the atmosphere. To minimize fugitive particulate matter emissions from the ash handling equipment, ash (bottom and fly) is wetted to a moisture content of approximate of 20 to 25 percent.

{Permitting Note: This emissions unit is regulated pursuant to Permit No. 0990234-032-AC/PSD-FL-413C. This emissions unit commenced initial operation in February of 2015. Emissions from the wet scrubber are exhausted to the atmosphere through a horizontal duct with an exit diameter of 10.8 feet and at a height of 40 feet above grade.}

Essential Potential to Emit (PTE) Parameters

- B.54. Permitted Capacity.** The ash handling system is authorized to handle all of the bottom and fly ash generated on-site. [Permit No. 0990234-032-AC/PSD-FL-413C.]
- B.55. Hours of Operation.** This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C.]

Control Technology

- B.56. Wet Scrubber.** To minimize particulate matter emissions from the ash handling equipment, the permittee shall operate and maintain a wet scrubber through which air from the ash handling building will be routed to prior to discharge to the atmosphere. *{Permitting Note: To minimize fugitive particulate matter emissions from the ash handling equipment, ash (bottom and fly) will be wetted to a moisture content of approximate of 20 to 25 percent.}* [Permit No. 0990234-032-AC/PSD-FL-413C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emission Units 024, 025, 026, 027, 028, 030, 034

PBREF-2: Municipal Waste Combustor - Unit Nos. 3, 4, 5, Lime Storage Silos A & B, Activated Carbon Storage Silo, and Ash Handling System and Building

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **B.59.** - **B.62.** are based on the specified averaging time of the applicable test method.

B.57. Fugitive Ash Emissions.

- a. On and after the date on which the initial performance test is completed or is required to be completed under 40 CFR 60.8 of Subpart A, no owner or operator of an affected facility shall cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour period), as determined by EPA Reference Method 22 observations as specified in 40 CFR 60.58b(k), except as provided in paragraphs b. and c., below.
- b. The emission limit specified in a., above, does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified in a., above, does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.
- c. The provisions of a., above, do not apply during maintenance and repair of ash conveying systems. [40 CFR 60.55b; and, Permit No. 0990234-032-AC/PSD-FL-413C.]

B.58. Testing for Fugitive Ash Emissions. The procedures specified in a. through b. below shall be used for determining compliance with the fugitive ash emission limit under 40 CFR 60.55b.

- a. The EPA Reference Method 22 shall be used for determining compliance with the fugitive ash emission limit under 40 CFR 60.55b. The minimum observation time shall be a series of three 1-hour observations. The observation period shall include times when the facility is transferring ash from the municipal waste combustor unit to the area where ash is stored or loaded into containers or trucks.
- b. The average duration of visible emissions per hour shall be calculated from the three 1-hour observations. The average shall be used to determine compliance with 40 CFR 60.55b.
- c. The owner or operator of an affected facility shall conduct an initial performance test for fugitive ash emissions as required under 40 CFR 60.8.
- d. Following the date that the initial performance test for fugitive ash emissions 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 fugitive ash emissions on an annual basis (no more than 12 calendar months following the previous performance test). [40 CFR 60.58b(k) ; and, Permit No. 0990234-032-AC/PSD-FL-413C.]

B.59. Ash Handling Wet Scrubber PM Emission Standard. PM emissions from the wet scrubber of the ash handling building shall not exceed 0.010 gr/dscf. [Permit No. 0990234-032-AC/PSD-FL-413C.]

B.60. Wet Scrubber PM Standard by Opacity Measurement. A visible emission reading of 5% opacity or less may be used to demonstrate compliance with the wet scrubber's PM emission standard. [Permit No. 0990234-032-AC/PSD-FL-413C.]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

B.61. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

B.62. Excess Emissions Prohibited. Excess emissions which are 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.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emission Units 024, 025, 026, 027, 028, 030, 034

PBREF-2: Municipal Waste Combustor - Unit Nos. 3, 4, 5, Lime Storage Silos A & B, Activated Carbon Storage Silo, and Ash Handling System and Building

Monitoring of Operations

B.63. Wet Scrubber O&M Plan and Monitoring. For the wet scrubber, the permittee shall maintain an operation and maintenance (O&M) plan to address proper operation, parametric monitoring, and a schedule for conducting periodic inspections and preventive maintenance. Wet scrubber inspections and maintenance activities shall be recorded in a written log. The wet scrubber shall be operated in accordance with the manufacturer's recommendations for the given operating conditions. The permittee shall take corrective actions as necessary when the water level alarm activates. [Permit No. 0990234-032-AC/PSD-FL-413C.]

Test Methods and Procedures

B.64. Test Methods. When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Determination of Particulate Emissions. The minimum sample volume shall be 30 dry standard cubic feet.
22	Fugitive Opacity

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-204.800, F.A.C.; and, Permit No. 0990234-032-AC/PSD-FL-413C.]

B.65. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

B.66. Annual Compliance Tests. During each calendar year (January 1st to December 31st), the bottom and fly ash conveyors, transfer points, drop points, hoppers, chutes and dust collectors associated with this emission unit shall be tested to demonstrate compliance with the VE emission standards specified in Specific Condition **B.59.** of this subsection. During each calendar year (January 1st to December 31st), the ash handling building wet scrubber shall be tested to demonstrate compliance with its VE emission standard emission standard specified in Specific Condition **B.63.** of this subsection. [Permit No. 0990234-032-AC/PSD-FL-413C.]

B.67. Ash Handling Building Wet Scrubber PM Compliance Testing. The annual VE tests in Specific Condition **B.68.** of this subsection with regard to the ash handling building wet scrubber shall serve as a surrogate for PM emissions testing. If the Department has reason to believe that any particulate matter limitation is not being met, it shall require compliance be demonstrated by conducting a particulate matter test in accordance with EPA Method 5 specified at 40 CFR 60 Appendix A. [Rule 62-297.620(1)-(3) &(4), F.A.C.; and, Permit No. 0990234-032-AC/PSD-FL-413C.]

Recordkeeping and Reporting Requirements

B.68. Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for reporting requirements. [Rule 62-213.440(1)(b), F.A.C.; and, Permit No. 0990234-032-AC/PSD-FL-413C.]

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SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emission Units 004 & 008 Landfills and Flares

The specific conditions in this section apply to the following emissions unit(s):

E.U. ID No.	Brief Description
	<i>Landfills and Flares</i>
004	<i>Class III Landfill and Flare (1,800 scfm, manufactured by LFG Specialties, model number PCF82018)</i>
008	<i>Class I Landfill and Flare (3,500 scfm, manufactured by Shaw LFG Specialties, model number CF1238I10)</i>

The facility currently has two contiguous landfills, a Class I landfill and a Class III landfill, each with its own gas collection system and flare.

Both landfills have a design capacity greater than 2.5 million megagrams (Mg) by mass or 2.5 million cubic meters by volume. The design capacity of the Class I landfill is 33,212,516 Mg by mass and the Class III landfill is 5,723,708 Mg by mass. The landfills commenced construction in August 1988. A minor modification was requested and approved in 1994, expanding the landfills and changing the slopes. The Class I landfill started receiving waste in August 1989 and the Class III landfill started receiving waste in April 1990. The yearly waste acceptance at the Class I and Class III landfills in fiscal year (FY) 2004 was 643,501 and 203,470 Mg/yr, respectively. The Class I landfill currently accepts both municipal solid waste and ash from the resource recovery facility. The Class III landfill accepts predominately construction and demolition (C&D) debris. The Class I landfill received asbestos from 1989-1993. In 1993, asbestos disposal was transferred to the Class III landfill, which continues to receive the material.

Non-methane organic compound (NMOC) emissions from each landfill were calculated to be greater than 50 Mg per year, therefore, gas collection and control systems were required. Collection and control of landfill gas emissions began in February 1996 for both landfills.

The facility has two flares with one located at each landfill. The flares are used to control emissions from the landfills. The gas flow rates from the Class I and Class III landfill flares are 1,839.6 million ft³/year and 946.08 million ft³/year, respectively. Each flare is rated based on a maximum heat content of 550 Btu/scfm. The Class I landfill flare, a 3,500 scfm flare (Emissions Unit ID No. 008) was manufactured by Shaw LFG Specialties, model number CF1238I10 and began operations on May 15, 2008. The Class III landfill flare, a 1,800 scfm flare (Emissions Unit ID No. 004) was manufactured by LFG Specialties, model number PCF82018 and began operations in 1999.

The landfills are collocated with a major source of HAP; however, individually they are not major sources of HAP. The landfills do not contain bioreactors.

The Class III landfill is expected to close around 2020 and the Class I landfill around 2049.

{Permitting note(s): These emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required; 40 CFR 60, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills adopted by reference in Rule 62-204.800(8)(b), F.A.C.; 40 CFR 63, Subpart AAAA, National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills adopted by reference in Rule 62-204.800(11)(b)59., F.A.C.; and, 40 CFR 61, Subpart M, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Asbestos adopted by reference in Rule 62-204.800(10)(b), F.A.C. The flares are regulated under the NSPS 40 CFR 60, Subpart A, General Provisions, specifically at 40 CFR 60.18(b), adopted by reference in Rule 62-204.800(8)(d), F.A.C.}

Essential Potential to Emit (PTE) Parameters

C.1. Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - Potential to Emit (PTE), F.A.C. and Permit No. 0990234-002-AC/PSD-FL-108D.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emission Units 004 & 008

Landfills and Flares

- C.2. Flares - Landfill Gas Flow Rate.** The owner or operator shall not allow more than 3,500 scfm of landfill gas to be directed to the Class I flare and 1,800 scfm of landfill gas to be directed to the Class III flare. [Rule 62-4.070(3), F.A.C., and Permit No. 0990234-002-AC/PSD FL-108D, specific condition 3.]

Landfills - Collection and Control System Design Plan

- C.3. Landfills - Collection and Control System Design Plan.** As an amendment to the gas collection and control plan, the owner requested and received approval from the Department for alternative provisions to inactivate gas wells. The owner or operator shall inactivate gas wells in accordance with the plan approved by the Department. [Rule 62-204.800(8)(b)75., F.A.C.; 40 CFR 60.752(b)(2)(i) & 40 CFR 60.753(b); Class I and Class III Landfill Gas Well Inactivation Plan received September 19, 2005; and, DEP approval dated December 13, 2005.]

Landfills - Collection System Temperature, Oxygen and Nitrogen Requirements

- C.4. Landfills - Collection System Temperature, Oxygen and Nitrogen Requirements.** The permittee requested and received approval from the Department to establish a higher landfill gas temperature of 82.2° C for the interior wellhead in the gas collection system. The owner or operator shall operate each interior wellhead in the collection system with a landfill gas temperature less than 82.2° C. [Rule 62-204.800(8)(b)75., F.A.C.; 40 CFR 60.753(c); and, DEP approval dated October 25, 2005.]

Landfills - Surface Methane Requirements

- C.5. Landfills - Surface Methane Requirements.** The permittee requested and received approval from the USEPA to reduce the frequency of surface monitoring of methane gas emissions. The frequency of surface monitoring of methane gas emissions shall be annual for the Class III Landfill, provided that the methane concentration level remains below 250 parts per million (ppm). If the methane concentration equals or exceeds 250 ppm, then the surface monitoring shall revert back to a quarterly monitoring frequency. If no readings of 250 ppm or greater are detected in three consecutive subsequent quarterly samples, the frequency shall again become annual. Note that although quarterly monitoring shall be required if the methane concentration equals or exceeds 250 ppm, corrective action measures, as required by 40 CFR 60.755(c)(4), shall only be required when the concentration level equals or exceeds 500 ppm or more above background at any location. [Rule 62-204.800(7)(b), F.A.C.; 40 CFR 60.755(c)(1); USEPA approval dated June 7, 2002; and, Permit No. 0990234-005-AC/PSD-FL-108E, specific condition 2.]

Flares - General Control Device Requirements

- C.6. Flares - Operation.** The flares shall be operated with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f). [Rule 62-204.800(8)(d), F.A.C.; and, 40 CFR 60.18(c)(2)]
- C.7. Flares - Exit Velocity.** The flares shall be operated with an exit velocity, in accordance with 40 CFR 60.18(c)(4) and (5), as determined by the methods specified in 40 CFR 60.18(f)(4) and (f)(6). [Rule 62-204.800(8)(d), F.A.C.; and, 40 CFR 60.18(c)(4) & (5)]
- C.8. Flares - Actual Exit Velocity.** The owner or operator shall annually determine the actual exit velocity of each flare. [Permit No. 0990234-002-AC/PSD FL-108D, specific condition 5.]
- C.9. Flares - Operation.** Flares used to comply with provisions of 40 CFR 60, Subpart A shall be operated at all times when emissions may be vented to them. [Rule 62-204.800(8)(d), F.A.C.; and, 40 CFR 60.18(e)]

Emission Limitations and Standards

- C.10. Flares - Visible Emissions.** The flares shall be operated with no visible emissions (VE), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [Rule 62-204.800(8)(d), F.A.C.; and, 40 CFR 60.18(c)(1).]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emission Units 004 & 008 Landfills and Flares

Monitoring Requirements

{Permitting note: TABLE L-1. SUMMARY OF MONITORING REQUIREMENTS FOR MSW LANDFILLS under 40 CFR 60, Subpart WWW and 40 CFR 63, Subpart AAAA, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

- C.11. Flares - Landfill Gas Flow Rate.** Total landfill gas flow to the flares shall be continuously measured and recorded. [Rules 62-4.160(2) & 62-4.070(3), F.A.C.; and, Permit No. 0990234-012-AC, specific condition 2.]
- C.12. Flares - Landfill Gas Flow Rate.** The actual flow rate shall be determined for each flare on a monthly average basis by dividing the measured flow by the hours that each flare was operated each month. Compliance with this limitation shall be by measuring landfill gas flows to each flare and recording flows with a totalizing meter. Records of the totalizing meter values shall be recorded in an operators log monthly, or whenever the meter is reset for any purpose, whichever is more frequent. The owner or operator shall maintain a strip chart recorder to record the flow rate to each flare as a backup device in the event that the totalizer meter is not functioning; the strip chart recorder shall also be used in conjunction with an operators log to document the hours each month that each flare was operated. [Rule 62-4.070(3), F.A.C., and Permit No. 0990234-002-AC/PSD FL-108D, specific condition 3.]
- C.13. Sampling & Analysis of Sulfur Content of Landfill Gas.** The sulfur content of each landfill's gas shall be sampled annually, analyzed and the results provided to the compliance authority with a copy to the Bureau of Air Regulation. The sulfur content of each landfill's gas shall be analyzed at the inlet to the flare. Based on the sampling results and Rule 62-297.310(7)(b), F.A.C., the Department may request additional gas sampling and analyses. [Rules 62-4.070(3) and 62-297.310, F.A.C.; Permit No. 0990234-012-AC, specific condition 7.; and, Permit No. 0990234-002-AC/PSD FL-108D, specific condition 5.]
- C.14. Startup, Shutdown and Malfunction Plan under NESHAP 40 CFR 63, Subpart AAAA.** The owner or operator shall follow the written startup, shutdown and malfunction plan (SSM Plan). A copy of the SSM Plan must be maintained on site. [Rule 62-204.800(11)(d)1., F.A.C. and 40 CFR 63.1960.]

Test Methods and Procedures

- C.15. Flares - Test Methods.** Required tests shall be performed in accordance with the following reference methods:

Method(s)	Description of Method(s) and Comment(s)
ASTM Method D1072-90, or later method	Sulfur Content Analysis of Landfill Gas
ASTM D1945-03 ¹	Alternative Method of Determining Net Heating Value of Landfill Gas
In-place Calibrated Flow Meter ¹	Determining Flare Gas Exit Velocity
EPA Method 22	Visual Determination of Smoke Emissions from Flares

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C. & Rule 62-204.800(9)(b)7., F.A.C.; Permit No. 0990234-002-AC/PSD FL-108D, specific condition 5.; and, ¹ USEPA approval dated August 10, 2005.]

- C.16. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emission Units 004 & 008

Landfills and Flares

- C.17. Annual Compliance Test.** During each calendar year (January 1st to December 31st), the flares shall be tested to demonstrate compliance with the emission limitations for VE. [Rule 62-297.310(7), F.A.C.]
- C.18. Flares - Determining Net Heating Value of Landfill Gas.** The owner or operator requested and received approval from USEPA for an alternative method of determining the net heating value of the gas being combusted in the flares. ASTM D1945-03 shall be used in place of EPA Method 18. A minimum collection of three (3)-thirty (30) minute samples is required. The requirement to test for hydrogen with ASTM D1946 is waived due to the low levels of hydrogen in the landfill gas. [Rule 62-204.800(8)(d), F.A.C.; 40 CFR 60.18(f)(3); and, USEPA approval dated August 10, 2005.]
- C.19. Flares - Determining Flare Gas Exit Velocity.** The owner or operator requested and received approval from USEPA for an alternative method of determining the flare gas exit velocity. The in-place calibrated flow meter shall be used in place of EPA Methods 2, 2A, 2C, or 2D. [Rule 62-204.800(8)(d), F.A.C.; 40 CFR 60.18(f)(4); and, USEPA approval dated August 10, 2005.]
- C.20. Flares - Visible Emission Test Method.** EPA Method 22 shall be used to determine the compliance with the visible emission limit for the flares. The observation period is 2 hours and shall be used according to EPA Method 22. [Rule 62-204.800(8)(d), F.A.C.; and, 40 CFR 60.18(f)(1).]
- C.21. Flares - Sulfur Content of Landfill Gas.** The owner or operator shall annually analyze the sulfur content of the landfill gas directed to each flare using ASTM Method D1072-90, or later method. [Permit No. 0990234-002-AC/PSD FL-108D, specific condition 5.]

Recordkeeping and Reporting Requirements

{Permitting note: TABLE L-2. SUMMARY OF RECORDKEEPING REQUIREMENTS FOR MSW LANDFILLS under 40 CFR 60, Subpart WWW and 40 CFR 63, Subpart AAAAA, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting note: TABLE L-3. SUMMARY OF COMPLIANCE REPORTING REQUIREMENTS FOR MSW LANDFILLS under 40 CFR 60, Subpart WWW and 40 CFR 63, Subpart AAAAA, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

- C.22. Reporting Schedule.** The following reports shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Condition
Semi-Annual Compliance Reports	Every 6 months, due March 1 st and September 1 st	C.24.

[Rule 62-213.440, F.A.C.]

- C.23. Flares - Reporting Requirements.** The owner or operator shall annually report the actual exit velocity of each flare and the sulfur content of the landfill gas directed to each flare. The actual exit velocity shall be reported to the Department as an attachment to the facility's annual operating report (AOR). The sulfur content along with SO₂ emissions in tons per year (TPY) for each flare shall also be included with the AOR. [Permit No. 0990234-002-AC/PSD FL-108D, specific condition 5.]
- C.24. Landfills - Semi-Annual Compliance Reports under NESHAP 40 CFR 63, Subpart AAAAA.** The owner or operator shall submit semi-annual compliance reports. The semi-annual compliance reports shall be due March 1st and September 1st. [Rule 62-204.800(11)(d)1., F.A.C.; 40 CFR 63.1980(a); and, Applicant's Request.]
- C.25. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emission Units 004 & 008 Landfills and Flares

NSPS 40 CFR 60, Subpart A & WWW Requirements

- C.26. NSPS Requirements - Subpart WWW.** Except as otherwise provided in this permit, these emissions units shall comply with all applicable provisions of 40 CFR 60, Subpart WWW, Municipal Solid Waste Landfills, adopted by reference in Rule 62-204.800(8)(b), F.A.C.; except that the Secretary is not the Administrator for purposes of 40 CFR 60.754(a)(5). These emissions units shall comply with all applicable provisions of **Appendix 40 CFR 60 Subpart WWW** included with this permit. [Rule 62-204.800(8)(b)75., F.A.C.]
- C.27. NSPS Requirements - Subpart A.** These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:
40 CFR 60.7, Notification and Recordkeeping
40 CFR 60.8, Performance Tests
40 CFR 60.11, Compliance with Standards and Maintenance Requirements
40 CFR 60.12, Circumvention
40 CFR 60.13, Monitoring Requirements
40 CFR 60.19, General Notification and Reporting Requirements,
which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C.; except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. These emissions units shall comply with all applicable provisions of **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]

NESHAP 40 CFR 61, Subpart A & M - Asbestos Disposal Site Standards

- C.28. NESHAP 40 CFR 61 Requirements - Subpart M [Set A].** The asbestos waste disposal sites shall comply with all applicable requirements of 40 CFR 61, Subpart M, National Emission Standard for Asbestos, which have been adopted by reference in Rule 62-204.800(10)(b), F.A.C.; except that the Secretary is not the Administrator for the purposes of 40 CFR 61.149(c)(2), 40 CFR 61.150(a)(4), 40 CFR 61.151(c), 40 CFR 61.152(b)(3), 40 CFR 61.154(d), and 40 CFR 61.155(a). These emissions units shall comply with all applicable provisions of **Appendix 40 CFR 61, Subpart M "Set A,"** included with this permit. [Rule 62-204.800(10)(b)8., F.A.C.]
- C.29. NESHAP 40 CFR 61 Requirements - Subpart A.** The asbestos waste disposal sites shall comply with all applicable requirements of 40 CFR 61, Subpart A, General Provisions, which have been adopted by reference in Rule 62-204.800(10)(d), F.A.C.; except for 40 CFR 61.08 and except that the Secretary is not the Administrator for the purposes of 40 CFR 61.04, 40 CFR 61.11, and 40 CFR 61.18. In lieu of the process set forth in 40 CFR 61.08, the Department will follow the permit processing procedures of Rule 62-4.055, F.A.C. The asbestos waste disposal sites shall comply with all applicable provisions of **Appendix 40 CFR 61 Subpart A - General Provisions** included with this permit. [Rule 62-204.800(10)(d), F.A.C.]

NESHAP (MACT) 40 CFR 63, Subpart A & AAAA Requirements

*{Permitting note: Most of the requirements of NESHAP 40 CFR 63, Subpart AAAA cross references conditions (applicable requirements) that are contained in NSPS 40 CFR 60, Subpart WWW. However, NESHAP 40 CFR 63, Subpart AAAA does include several additional requirements, most importantly the requirement to develop and implement a written startup, shutdown and malfunction plan (SSM Plan) (see 40 CFR 63.1960 in **Appendix 40 CFR 63 Subpart AAAA**, and 40 CFR 63.6(e)(3) in **Appendix 40 CFR 63 Subpart A**), and the requirement for submittal of a semi-annual compliance report (see 40 CFR 60.757(f) in **Appendix 40 CFR 60 Subpart WWW** and 40 CFR 63.1980 in **Appendix 40 CFR 63 Subpart AAAA**.)}*

- C.30. 40 CFR 63 Requirements - Subpart A.** These emissions units shall comply with all applicable requirements of 40 CFR 63, Subpart A, General Provisions, which have been adopted by reference in Rule 62-204.800(11)(d)1., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 63.5(e), 40 CFR 63.5(f), 40 CFR 63.6(g), 40 CFR 63.6(h)(9), 40 CFR 63.6(j), 40 CFR 63.13, and 40 CFR

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emission Units 004 & 008

Landfills and Flares

63.14. These emissions units shall comply with **Appendix 40 CFR 63 Subpart A** included with this permit. [Rule 62-204.800(11)(d)1., F.A.C.]

C.31. 40 CFR 63 Requirements - Subpart AAAA. These emissions units shall comply with all applicable requirements of 40 CFR 63, Subpart AAAA, Municipal Solid Waste Landfills, which have been adopted by reference in Rule 62-204.800(11)(b)59., F.A.C., except that the Secretary is not the Administrator for purposes of the authorities cited at 40 CFR 63.1985(c). These emissions units shall comply with **Appendix 40 CFR 63 Subpart AAAA** included with this permit. [Rule 62-204.800(11)(b)59., F.A.C.]

Odor Remediation Plan

C.32. Not Federally Enforceable. Odor Remediation Plan. The facility shall be operated to control objectionable odors in accordance with subsection 62-296.320(2), F.A.C. After being notified by the Department that objectionable odors have been confirmed beyond the landfill property boundary, the owner or operator shall:

- a. Immediately take steps to reduce the objectionable odors. Such steps may include applying or increasing initial cover, reducing the size of the working face, and ceasing operations in the areas where odors have been detected;
- b. Submit to the Department for approval an odor remediation plan for the gas releases. The plan shall describe the nature and extent of the problem and the proposed long-term remedy. The remedy shall be initiated within 30 days of approval.
- c. Implement a routine odor monitoring program to determine the timing and extent of any off-site odors, and to evaluate the effectiveness of the odor remediation plan.

[Rule 62-701.530(3)(b), F.A.C.]

C.33. Pin Wells and Surface Collectors for Odor Control. The permittee is authorized to install and remove pin wells and surface collectors for odor control at the Class III Landfill (E.U. ID No. 004) and the Class I Landfill (E.U. ID No. 008). The permittee is allowed to operate these devices for odor control at its discretion and is not required to operate them according to requirements of 40 CFR 60.753(c). [Applicant Request/DEP approval dated November 6, 2011.]

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SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emission Units 010, 011, 012, 014 & 045 Biosolids Pelletization Facility

The specific conditions in this section apply to the following emissions unit(s):

E.U. ID No.	Brief Description
	<i>Biosolids Pelletization Facility (BPF)</i>
010	BPF Sludge Dryer Train #1
011	BPF Sludge Dryer Train #2
012	BPF Recycle Material Bin for Sludge Dryer Train #1
014	BPF Recycle Material Bin for Sludge Dryer Train #2
045	Pellet Storage Silo for Sludge Dryer Trains #1 & 2

The BPF has two 337.5 wet tons per day (wtpd) {67.5 dry tpd} sludge drying trains, Dryer Train #1 and #2, and related appurtenances. The sludge dryer trains were manufactured by Baker Rullman Drum Assembly, Model No. SD-125-42. Each dryer train at the BPF combusts landfill gas generated from the nearby landfill and/or natural gas in a rotary drum dryer to dry sewage sludge and then screens the dried sludge into marketable fertilizer pellets. Each dryer has a rated capacity of 40 MMBtu/hour heat input (natural gas or landfill gas) plus an additional 2 MMBtu/ hour heat input from each regenerative thermal oxidizer (RTO) for a total rated capacity of 84 MMBtu/ hour heat input from the dryers and the RTOs.

Dry low NO_x burners and acid addition in the tray/condenser scrubber are used to control NO_x emissions from each dryer's exhaust. A tray/condenser scrubber and a venturi scrubber are used to control PM emissions from each dryer's exhaust. The BPF uses a regenerative thermal oxidizer (RTO) on each dryer exhaust to control VOC emissions with an efficiency of 98%. The RTO also minimizes odors. VOCs are also combusted in the dryer burners with an estimated efficiency of 98%. CO emissions are controlled by good combustion in the dryer and in the RTO.

Each dryer RTO train has its own flue within a shared single stack. The stack parameters are: height, 138 feet; diameter, 2.5 feet; exit temperature, 194 degrees F; and, actual stack gas flow rate, 15,000 acfm. The sludge dryer trains began operation on May 22, 2009.

Each biosolids dryer train also has the following: a recycle material bin and pellet storage silo, and a cooling tower. Dusty air from both silo filling operations is ducted to a product silo dust collector. Each recycle material bin baghouse vents through a building odor scrubber which exhausts through an approximately 0.5 feet diameter outlet at about 50 feet above grade. Emissions from the cooling towers are uncontrolled.

{Permitting note(s): The sludge drying trains are regulated under 40 CFR 61, Subpart E, National Emission Standards for Hazardous Air Pollutants for Mercury, adopted and incorporated by reference in Rule 62-204.800(10)(b)3., F.A.C. and 40 CFR 64, Compliance Assurance Monitoring (CAM). The sludge drying trains are not regulated under 40 CFR 60, Subpart LLLL, Standards of Performance for New Stationary Sources: Sewage Sludge Incineration Units and 40 CFR 60, Subpart MMMM, Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units pursuant to the specific exemptions at 40 CFR 60.4780 and 40 CFR 60.5065. Some of these emissions units are regulated under Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) [PSD-FL-108F, G & I and, Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT).}

Essential Potential to Emit (PTE) Parameters

D.1. Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - Potential to Emit (PTE), F.A.C. and Permit No. 0990234-006-AC/PSD-FL-108F.]

D.2. Permitted Capacity. The maximum process rate for each dryer train is 337.5 wet tons of sludge per day (wtpd, at 20% solids) or 67.5 dry tpd. The maximum process rate for the Biosolids Pelletization Facility

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emission Units 010, 011, 012, 014 & 045 Biosolids Pelletization Facility

(BPF) is 675 wet tons of sludge per day (wtpd, at 20% solids) or 135 dry tpd. The maximum heat input rate for each dryer and RTO are as follows:

E.U. ID No.	Brief Description	Max. Heat Input (Natural or Landfill Gas)
010	BPF Sludge Dryer Train #1	42 MMBtu/hour
011	BPF Sludge Dryer Train #2	42 MMBtu/hour

[Rules 62-4.160(2) & 62-210 (PTE), F.A.C. and Permit Nos. 0990234-006-AC/PSD-FL-108F & 0990234-019-AC/PSD-FL-108I.]

D.3. Methods of Operation - Fuels. The dryers may be fired with natural gas and/or landfill gas. [Rules 62-4.160(2) & 62-210.200 (PTE), F.A.C. and Permit Nos. 0990234-006-AC/PSD-FL-108F & 0990234-019-AC/PSD-FL-108I.]

D.4. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

Monitoring of Operations

D.5. Sludge Process Rate. The owner or operator shall monitor and record daily the sludge process rate for each dryer train. [Rule 62-4.070(1) & (3), F.A.C.; and, Permit No. 0990234-006-AC/PSD-FL-108F.]

Operation and Maintenance of Air Pollution Control Technologies

D.6. Operation and Maintenance of Air Pollution Control Technologies. The owner or operator shall operate and maintain the selected air pollution control technologies, e.g., dry low NO_x burners, exhaust gas recirculation system, tray scrubber/condenser scrubber, venturi scrubbers and RTOs. [BACT Determination and Permit No. 0990234-006-AC/PSD-FL-108F.]

D.7. Operation and Maintenance of Fabric Filters. The owner or operator shall operate and maintain fabric filters on each material recycle bin exhaust to control PM emissions from the material recycle bin and the pellet storage silo. [BACT Determination and Permit No. 0990234-006-AC/PSD-FL-108F.]

D.8. Operation and Maintenance Manuals. The owner or operator shall follow the manufacturers' Operation and Maintenance Manuals for the selected air pollution control technologies, e.g., dry low NO_x burners, exhaust gas recirculation system, tray scrubber/condenser scrubber, venturi scrubber, RTOs and fabric filters. [BACT Determination and Permit No. 0990234-006-AC/PSD-FL-108F.]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **D.9. - D.17.** are based on the specified averaging time of the applicable test method.

D.9. Nitrogen Oxides. NO_x emissions from each sludge dryer RTO train shall not exceed 5.60 lbs/hour and 24.55 tons/year. [BACT Determination and Table AP-1 from Permit No. 0990234-006-AC/PSD-FL-108F.]

D.10. Particulate Matter. PM/PM₁₀ emissions from each sludge dryer RTO train shall not exceed 2.42 lbs/hour and 10.6 tons/year. [BACT Determination and Table AP-1 from Permit No. 0990234-006-AC/PSD-FL-108F.]

D.11. Visible Emission. VE from each sludge dryer RTO train shall not exceed 5% opacity, except 20% opacity is allowed for up to 3 minutes in 1 hour. [BACT Determination and Table AP-1 from Permit No. 0990234-006-AC/PSD-FL-108F.]

D.12. Particulate Matter. PM/PM₁₀ emissions from each recycle material bin and the pellet storage silo baghouse shall not exceed 0.010 gr/dscf. [BACT Determination and Table AP-1 from Permit No. 0990234-006-AC/PSD-FL-108F.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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- D.13. Visible Emission.** VE from each recycle material bin and the pellet storage silo baghouse shall not exceed 5% opacity. [BACT Determination and Table AP-1 from Permit No. 0990234-006-AC/PSD-FL-108F.]
- D.14. Sulfur Dioxide.** SO₂ emissions from each sludge dryer RTO train shall not exceed 4.45 lbs/hour and 19.5 tons/year. [Rules 62-212.400(12) (Source Obligation, escape PSD), 62-4.070(1), & (3), F.A.C., and Table AP-1 from Permit No. 0990234-006-AC/PSD-FL-108F.]
- D.15. Carbon Monoxide.** CO emissions from each sludge dryer RTO train shall not exceed 3.37 lbs/hour and 14.75 tons/year. [Rules 62-212.400(12) (Source Obligation, escape PSD), 62-4.070(1), & (3), F.A.C., and Table AP-1 from Permit No. 0990234-006-AC/PSD-FL-108F.]
- D.16. Volatile Organic Compound.** VOC emissions from each sludge dryer RTO train shall not exceed 1 lbs/hour and 4.4 tons/year. [Rules 62-212.400(12) (Source Obligation, escape PSD), 62-4.070(1), & (3), F.A.C., and Table AP-1 from Permit No. 0990234-006-AC/PSD-FL-108F.]
- D.17. Mercury.** Hg emissions from each sludge dryer RTO train shall not exceed 2.2 E-02 lb/24-hour period. {The Hg emissions standard under the NESHAP is 3.2 kg (7.1 lb)/24-hour period. The applicant proposed a limit which is much lower than the NESHAP standard.} [Rules 62-212.400(12) (Source Obligation, escape PSD), 62-4.070(1), & (3), F.A.C., and Table AP-1 from Permit No. 0990234-006-AC/PSD-FL-108F.]
- D.18. Unconfined Particulate Matter Emissions at BPF.** Pursuant to Rules 62-296.320(4)(c)1., 3. and 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter at the BPF include the following requirements consistent with current practices by the Solid Waste Authority:
- Pave all parking lots and permanent drives;
 - Street sweep paved areas on a regular basis; and,
 - Use a water truck to spray water on unpaved roads and active unpaved areas.
- [Rule 62-296.320(4)(c)2., F.A.C. and Permit No. 0990234-006-AC/PSD-FL-108F.]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C., cannot vary any requirement of a NESHAP provision.

- D.19. Excess Emissions Allowed.** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
- D.20. Excess Emissions Prohibited.** Excess emissions which are 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.]

Monitoring Requirements

- D.21. Compliance Assurance Monitoring (CAM) Requirements.** Each sludge dryer RTO train is subject to the CAM requirements contained in the attached Appendix CAM. 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 compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; and, Rules 62-204.800 & 62-213.440(1)(b)1.a., F.A.C.]

{Permitting note: The excursion level specified in the approved CAM Plan was established based upon the initial PM test data (September 2009) and the manufacturer's recommendations. The excursion level shall be re-evaluated at the time of permit renewal based upon the new most recent test data and the manufacturer's recommendations.}

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emission Units 010, 011, 012, 014 & 045 Biosolids Pelletization Facility

Test Methods and Procedures

D.22. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Method 5	Methods for Determining Particulate Matter (PM) Emissions
EPA Method 6C	Method for Determining Sulfur Dioxide (SO ₂) Emissions
EPA Method 7 or 7E	Method for Determining Nitrogen Oxides (NO _x) Emissions
EPA Method 9	Visual Determination of the Opacity of Emissions (VE)
EPA Method 10	Method for Determining Carbon Monoxide (CO) Emissions
EPA Method 25 or 25A	Methods for Determining Volatile Organic Compound (VOC) Emissions
EPA Method 101A or EPA Method 105	Method for Determining Particulate and Gaseous Mercury (Hg) Emissions from Sewage Sludge Incinerators or Method for Determining Mercury (Hg) in Wastewater Treatment Plant Sewage Sludge The specific testing and sampling conditions as outlined in 40 CFR 61.53 and 61.54 shall be followed as described.

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C. and Permit No. 0990234-006-AC/PSD-FL-108F.]

D.23. Annual Compliance Test. Except as specified in Specific Condition **D.26.**, during each calendar year (January 1st to December 31st), Emissions Unit ID Nos. 010 and 011 (Sludge Dryer Train #1 and #2) and 012 & 014 (Recycle Material Bins & Pellet Storage Silos for Sludge Dryer Train #1 and #2) and Pellet Storage Silo for Sludge Dryer Trains #1 & 2 shall be tested to demonstrate compliance with the emission limitations for VE. Compliance with the visible emissions limit for the recycle bin fabric filter exhaust is determined at the building odor control scrubber exhaust. [Rule 62-297.310(7), F.A.C. and Permit No. 0990234-006-AC/PSD-FL-108F.]

D.24. Compliance Test Prior To Renewal. Prior to permit renewal, Emissions Unit ID Nos. 010 and 011 (Sludge Dryer Train #1 and #2) shall be tested to demonstrate compliance with the emission limitations for NO_x, PM/PM₁₀, SO₂, and Hg. [Rule 62-297.310(7)(a)3., F.A.C. and Permit No. 0990234-006-AC/PSD-FL-108F.]

D.25. Compliance Testing - CO and VOC Emissions. The testing frequency for CO and VOC emissions was an initial demonstration only; no subsequent testing is required for CO and VOC because the lb/hour emission rates stated in Table AP-1 were achieved in the initial test. In lieu of frequent testing for CO and VOC emissions, the owner or operator shall follow the Operation and Maintenance Manuals for the dry low NO_x burners and the RTOs. [Permit No. 0990234-006-AC/PSD-FL-108F and Rule 62-297.310(7)(a)4., F.A.C.]

D.26. Minor PM Source Testing. The recycle material bins and pellet storage silos are minor sources of particulate matter. Because of the expense and complexity of conducting a stack test on minor sources of particulate matter, and because these sources are equipped with baghouses, the Department pursuant to the authority granted under Rule 62-297.620(4), F.A.C., hereby establishes a visible emission limitation not to exceed an opacity of 5% in lieu of a particulate matter stack test. In accordance with Rule 62-297.620(4), minor particulate matter sources equipped with baghouses with visible emissions that are greater than or equal to 5 percent opacity may result in the permittee being required to perform a stack test in accordance with

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approved methods to verify compliance with the gr/dscf emission limits. The visible emissions test shall be conducted by a certified observer using Method 9 and the procedures in 40 CFR. 60.11 and Rule 62-297.320, F.A.C. [Rule 62-297.620(1)-(4), F.A.C. and Permit No. 0990234-006-AC/PSD-FL-108F.]

- D.27. Common Testing Requirements.** Unless otherwise specified above, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Recordkeeping and Reporting Requirements

- D.28. Reporting Schedule.** The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Condition
Excess Emissions from Malfunctions, if requested by the Compliance Authority	Every 3 months (quarter)	D.29.

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

- D.29. Excess Emissions from Malfunctions.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Compliance Authority in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Compliance Authority. [Rule 62-210.700(6), F.A.C.]

- D.30. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

NESHAP 40 CFR 61, Subparts A & E Requirements

- D.31. NESHAP 40 CFR 61 Requirements - Subpart A.** The dryers shall comply with all applicable requirements of 40 CFR 61, Subpart A, General Provisions, which have been adopted by reference in Rule 62-204.800(10)(d), F.A.C., except for 40 CFR 61.08 and except that the Secretary is not the Administrator for the purposes of 40 CFR 61.04, 40 CFR 61.11, and 40 CFR 61.18. In lieu of the process set forth in 40 CFR 61.08, the Department will follow the permit processing procedures of Rule 62-4.055, F.A.C. The dryers shall comply with all applicable provisions of Appendix 40 CFR 61 Subpart A - General Provisions included with this permit. [Rule 62-204.800(10)(d), F.A.C.]

- D.32. NESHAP 40 CFR 61 Requirements - Subpart E.** The dryers shall comply with all applicable requirements of 40 CFR 61, Subpart E, National Emission Standards for Hazardous Air Pollutants for Mercury, which have been adopted by reference in Rule 62-204.800(10)(b)3., F.A.C., except that the term "Administrator," when used in any provision of 40 CFR Part 61 that is delegated to the Department by the U.S. Environmental Protection Agency, shall mean the Secretary or the Secretary's designee. The dryers shall comply with all applicable provisions of Appendix 40 CFR 61 Subpart E - NESHAP for Mercury included with this permit. [Rule 62-204.800(10)(a) & (b)3., F.A.C.]

- D.33. Biosolids Pelletization Facility (BPF) - Product Silo Dust Collector Project under Permit No. 0990234-036-AC.** The project under Permit No. 0990234-036-AC was not completed at the time of the renewal permit's issuance. Therefore, a mini-compliance plan (schedule for completion of construction/modification activities) is therefore included in the renewed permit. The following requirements apply as part of the plan:
- The permittee shall notify the Compliance Authority when the project is done; and,
 - Within 60 days of completion of the construction/modification the Pellet Storage Silo for Sludge Dryer Trains #1 & 2 shall be tested to demonstrate compliance with the emission limitations for VE.
- [62-213.440(1) & (2), F.A.C.]

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Subsection E. Emission Units 016, 021, 031, 032, 033 & 035-038, 042, 043, 046 & 047 Engines

Engines in this subsection are grouped by similar engine type as regulated by EPA. Each group number is followed by a very brief explanation of the engine type as described in the EPA regulations/tables.

	Group 1: “Existing” stationary CI RICE less than or equal to 500 HP	See Specific Conditions
E.U. ID No.	Brief Description	E.1. - E.10. & E.101. - E.104.
035	PBREF No. 1 Emergency Generator - Palm Beach Renewable Energy Park (PBREP) (SWA of PBC ID# WTE-E2)	
036	PBREF No. 1 Fire Water Pump - PBREP (SWA of PBC ID# WTE-E1)	
	Group 2: “Existing” stationary CI RICE greater than 500 HP	See Specific Conditions
E.U. ID No.	Brief Description	E.11. - E.12. & E.101. - E.104.
038	Emergency Generator - Utilities Facility (SWA of PBC ID# U-E5)	
	Group 4: “New” stationary CI RICE greater than or equal to 175 HP and less than or equal to 500 HP	See Specific Conditions
E.U. ID No.	Brief Description	E.37. - E.52. & E.101. - E.104.
021	Emergency Generator - Operations Building (EPA Tier 3 certified) (SWA of PBC ID# OPS-E1)	
	Group 5: “New” stationary CI RICE greater than 500 HP	See Specific Conditions
E.U. ID No.	Brief Description	E.53. - E.69. & E.101. - E.104.
016	Emergency Generator - Biosolids Pelletization Facility (BPF) (EPA Tier 3 certified) (SWA of PBC ID# BPF-E1)	
033	Emergency Generator - PBREF No. 2 (EPA Tier 2 certified)	
042	Emergency Generator - Administration (EPA Tier 1 certified) (SWA of PBC ID# A-E1)	
043	Emergency Generator - Materials Recovery Facility (MRF) (EPA Tier 2 certified) (SWA of PBC ID# MRF-E1)	
	Group 6: “New” stationary CI RICE less than 175 HP	See Specific Conditions
E.U. ID No.	Brief Description	E.70. - E.85. & E.101. - E.104.
037	Emergency Generator - PBREP Scalehouse (EPA Tier 3 certified) (SWA of PBC ID# WTES-E1)	

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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046	Emergency Generator - Landfill Scalehouse E2 (EPA Tier 3 certified)	
047	Emergency Generator - MIS (EPA Tier 3 certified)	
	Group 7: “New” stationary CI RICE fire pumps greater than or equal to 175 HP and less than or equal to 500 HP	See Specific Conditions
E.U. ID No.	Brief Description	E.86. - E.100. & E.101. - E.104.
031	Emergency Firewater Pump Engine A (351 HP) - PBREF No. 2 (EPA Tier 3 certified)	
032	Emergency Firewater Pump Engine B (351 HP) - PBREF No. 2 (EPA Tier 3 certified)	

This subsection of the permit is comprised of compression ignition (CI) type engines, some of which are emergency generators. Air pollutant emissions from these engines are uncontrolled.

{Permitting notes: These emissions units, engines, are regulated under 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE) adopted in Rule 62-204.800(11)(b), F.A.C. The permittee identified numerous other non-road engines (portable) located at the facility; these engines are not regulated under 40 CFR 63, Subpart ZZZZ. The “new” engines must meet 40 CFR 60, Subpart IIII, NSPS for Compression Ignition Internal Combustion Engines (CI ICE).}

Each part of this subsection includes unit-specific applicable requirements for each group of engines which were customized from the entire 40 CFR 63, Subpart ZZZZ and/or 40 CFR 60, Subpart IIII.

The specific conditions in this part of the subsection apply to the following group of emissions units:

	Group 1: “Existing” stationary CI RICE less than or equal to 500 HP
E.U. ID No.	Brief Description
035	PBREF No. 1 Emergency Generator - Palm Beach Renewable Energy Park (PBREP) (SWA of PBC ID# WTE-E2)
036	PBREF No. 1 Fire Water Pump - PBREP (SWA of PBC ID# WTE-E1)

{Permitting note: This part of the subsection addresses “existing” stationary CI RICE less than or equal to 500 horsepower (HP) that are located at a major source of HAP and that have not been modified or reconstructed after 6/12/2006. Unless the RICE is modified or reconstructed after 7/11/2005, NSPS 40 CFR 60, Subpart IIII, will not apply.}

The following table provides important details for these emissions units:

E.U. ID No.	Engine Brake HP	Date of Construction	Model Year	Primary Fuel	Type of Engine	Displacement liters/cylinder (l/c)	Manufacturer
							Model #
							Engine Serial #
035	356	1989	-	Diesel	Emergency	1.73	Caterpillar®
							3306
							85Z04092

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emission Units 016, 021, 031, 032, 033 & 035-038, 042, 043, 046 & 047 Engines

036	273	1994	-	Diesel	Emergency	1.75	Caterpillar®
							3306D
							6AF15B

Essential Potential to Emit (PTE) Parameters

E.1. Hours of Operation.

- Emergency Situations.* There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1)]
- Maintenance and Testing.* Each RICE is authorized to operate 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. [40 CFR 63.6640(f)(1)]
- Non-emergency Situations.* Each RICE is authorized to operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. [40 CFR 63.6640(f)(1)]
- Other Situations.* Each RICE cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph, as long as the power provided by the financial arrangement is limited to emergency power. [40 CFR 63.6640(f)(1)]
- Engine Startup.* During periods of startup the owner or operator must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for the appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63.6625(h)]

Emission Limitations and Operating Requirements

{Permitting note: These "existing" stationary CI engines with ≤ 500 HP do not have specific numerical emission limitations and standards.}

E.2. Work or Management Practice Standards.

- Oil.* Change oil and filter every 500 hours of operation or annually, whichever comes first. [40 CFR 63 Table 2c(1)(a)]
- Air Cleaner.* Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first. [40 CFR 63 Table 2c(1)(b)]
- Hoses and Belts.* Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63 Table 2c(1)(c)]
- Operation and Maintenance.* Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions or develop and follow your own maintenance plan which must provide, to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution, control practice for minimizing emissions. [40 CFR 63.6625(e)]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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- e. *Oil Analysis.* The owner or operator has the option of using oil analysis to extend the change requirement. The oil analysis must be performed at the same frequency specified for changing the oil. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent of water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent of water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63.6625(i)]

Monitoring of Operations

- E.3. *Hour Meter.* The owner or operator must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)]

Compliance Requirements

- E.4. *Continuous Compliance.* Each unit shall be in compliance with the emission limitations and operating standards in this section at all times. [40 CFR 63.6605(a)]
- E.5. *Operation and Maintenance of Equipment.* At all times the owner or operator must operate and maintain, any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the compliance authority which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b)]

Recordkeeping Requirements

- E.6. *Notification, Performance and Compliance Records.*
- A copy of each notification and report that the owner or operator submitted to comply with this section, including all documentation supporting any Initial Notification or Notification of Compliance Status that the owner or operator submitted.
 - The owner or operator must keep the records required in 40 CFR 63.6625(e) of this section to show continuous compliance with each emission limitation or operating requirement.
 - The owner or operator must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.
[40 CFR 63.6655]
- E.7. *Malfunction Records.*
- Records of the occurrence and duration of each malfunction of operation (i.e. process equipment) or the air pollution control and monitoring equipment.

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- b. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b) of this section including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[40 CFR 63.6655]

E.8. Maintenance Records.

- a. Records of all required maintenance performed on the air pollution control and monitoring equipment.
- b. The owner or operator must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the stationary RICE and after-treatment control device (if any) are operated and maintained according to its own maintenance plan.

[40 CFR 63.6655]

E.9. Record Retention.

- a. The owner or operator must keep records in a suitable and readily available form for expeditious reviews.
- b. The owner or operator must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

[40 CFR 63.6660 and 40 CFR 63.10(b)(1)]

Reporting Requirements

- E.10. Emergency Situation.** If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required of this section, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable. [40 CFR 63.6602 Table 2c, footnote 1]

The specific conditions in this part of the subsection apply to the following group of emissions units:

Group 2: "Existing" stationary CI RICE greater than 500 HP	
E.U. ID No.	Brief Description
038	Emergency Generator - Utilities Facility (SWA of PBC ID# U-E5)

{Permitting note: This part of the subsection addresses "existing" stationary CI RICE greater than 500 HP that are located at a major source of HAP and that have not been modified or reconstructed after 12/19/2002. Unless the RICE is modified or reconstructed after 7/11/2005, NSPS 40 CFR 60, Subpart IIII, will not apply. This RICE is not used as a fire pump.}

The following table provides important details for this emissions unit:

E.U. ID No.	Engine Brake HP	Date of Construction	Model Year	Primary Fuel	Type of Engine	Displacement liters/cylinder (l/c)	Manufacturer
							Model #
							Engine Serial #
038	3,164	5/7/2002	-	Diesel	Emergency	4.3	Caterpillar®
							3516B
							1HZ02187

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emission Units 016, 021, 031, 032, 033 & 035-038, 042, 043, 046 & 047 Engines

Essential Potential to Emit (PTE) Parameters

E.11. Hours of Operation.

- Emergency Situations.* There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(2)]
- Maintenance and Testing.* Each RICE is authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit for routine testing and maintenance. [40 CFR 63.6640(f)(2)]
- Non-emergency situations.* Each RICE is authorized to operate for an additional 50 hours per year in non-emergency situations. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6640(f)(2)]
- Engine Startup.* During periods of startup the owner or operator must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for the appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63.6625(h)]

Emission Limitations and Operating Requirements

{Permitting note: This “existing” stationary CI engine with > 500 HP does not have a specific numerical emission limitations and standards.}

Recordkeeping Requirements

E.12. Record Retention.

- The owner or operator must keep records in a suitable and readily available form for expeditious reviews.
- The owner or operator must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR 63.6660 and 40 CFR 63.10(b)(1)]

The specific conditions in this part of the subsection apply to the following group of emissions units:

	Group 4: “New” stationary CI RICE greater than or equal to 175 HP and less than or equal to 500 HP
E.U. ID No.	Brief Description
021	Emergency Generator - Operations Building (EPA Tier 3 certified) (SWA of PBC ID# OPS-E1)

{Permitting note: This part of the subsection addresses “new” stationary CI RICE greater than or equal to 175 HP and less than or equal to 500 HP, with a displacement less than 10 liters per cylinder, that are located at a major source of HAP and that have been modified, reconstructed or commenced construction on or after 6/12/2006 and have a 2007 or later model year. This RICE is not used as a fire pump.}

The following table provides important details for this emissions unit:

E.U. ID No.	Engine Brake HP	Date of Construction	Model Year	Primary Fuel	Type of Engine	Displacement liters/cylinder (l/c)	Manufacturer
							Model #
							Engine Serial #
021	250	2008	-	Diesel	Emergency	1.115	Cummings/Onan®
							DSGAB

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emission Units 016, 021, 031, 032, 033 & 035-038, 042, 043, 046 & 047 Engines

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Applicability

E.13. Applicability. Pursuant to 40 CFR 63.6590(c), these engines must comply with 40 CFR 63, Subpart ZZZZ by meeting the requirements of NSPS 40 CFR 60, Subpart IIII. Pursuant to 40 CFR 63.6590(c), no further requirements apply to the engine under 40 CFR 63, Subpart ZZZZ. [Rules 62-204.800(11) & (8), F.A.C.; and, 40 CFR 63.6590(c)]

Essential Potential to Emit (PTE) Parameters

E.14. Allowable Fuel. The stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

- a. *Sulfur Content.* The sulfur content shall not exceed 15 ppm (0.0015% by weight) for non-road diesel fuel.
- b. *Cetane and Aromatic.* The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.
[40 CFR 60.4207(b) and 40 CFR 80.510(b)]

E.15. Hours of Operation.

- a. *Emergency Situations.* There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 60.4211(e)]
- b. *Maintenance and Testing.* Each RICE is authorized to operate 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. [40 CFR 60.4211(e)]
- c. *Other Situations.* Each RICE cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4219]

Emission Standards and Limitations

E.16. NMHC + NO_x Emissions. Non-methane hydrocarbons and nitrogen oxide emissions shall not exceed 4.0 g/KW-hr {equivalent to: 3.2 lbs/hour (OPS-E1)}. [40 CFR 60.4205(b)]

E.17. CO Emissions. Carbon monoxide emissions shall not exceed 3.5 g/KW-hr {equivalent to: 1.4 lbs/hour (OPS-E1)}. [40 CFR 60.4205(b)]

E.18. PM Emissions. Particulate matter emissions shall not exceed 0.2 g/KW-hr {equivalent to: 4.3 lbs/hour (OPS-E1)}. [40 CFR 60.4205(b)]

E.19. Operation and Maintenance. The owner or operator must operate and maintain the stationary CI internal combustion engine 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 must meet the requirements of 40 CFR 89, 94 and/or 1068, as they apply. [40 CFR 60.4211(a)]

Monitoring of Operations

E.20. Hour Meter. The owner or operator must install a non-resettable hour meter if one is not already installed. [40 CFR 60.4209(a)]

Compliance Requirements

E.21. Compliance Requirements. Owner or operator must demonstrate compliance according to one of the methods below:

- c. *Certification.* Have purchased an engine certified according to 40 CFR 89 or 94, as applicable, for the same model year and maximum engine power.

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- d. *Manufacturer Data.* Keep records of engine manufacturer data indicating compliance with the standards.
- e. *Vendor Data.* Keep records of control device vendor data indicating compliance with the standards.
- f. *Performance Test.* Conduct an initial performance test to demonstrate compliance with the emission standards according to the testing requirements in this section.
- g. *Similar Engine Tests.* Keep records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

[40 CFR 60.4211(b)]

Testing Requirements

E.22. Performance Test. Performance test must be conducted according to the in-use testing procedures in 40 CFR 1039, Subpart F. [40 CFR 60.4212]

E.23. Engine Manufacturer's Recommendations and Instructions. If the owner/operator does not install, configure, operate, and maintain the engine according to the manufacturer's recommendations and instructions, any required testing shall be completed in accordance with 40 CFR 60, Subpart IIII. [40 CFR 60.4212.]

E.24. Not to exceed (NTE) Standards. Exhaust emissions from stationary CI ICE that are complying with the emission standards must not exceed the not to exceed (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard, determined from the following equation: $NTE = (1.25) \times (Standard)$. [40 CFR 60.4212]

Recordkeeping Requirements

E.25. Required Records. Owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214]

E.26. Record Retention.

- a. The owner or operator must keep records in a suitable and readily available form for expeditious reviews.
- b. The owner or operator must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

[40 CFR 63.6660 and 40 CFR 63.10(b)(1)]

NSPS 40 CFR 60, Subpart A & IIII Requirements

E.27. NSPS Requirements - Subpart A. These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:
40 CFR 60.7, Notification and Recordkeeping
40 CFR 60.8, Performance Tests
40 CFR 60.11, Compliance with Standards and Maintenance Requirements
40 CFR 60.12, Circumvention
40 CFR 60.13, Monitoring Requirements
40 CFR 60.19, General Notification and Reporting Requirements,
which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C.; except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. The applicable 40 CFR 60, Subpart A, General Provisions to which these emissions are subject to are found at 40 CFR 63.4218 and are included in **Appendix 40 CFR 60 Subpart A**. [Rule 62-204.800(8)(d), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**Subsection E. Emission Units 016, 021, 031, 032, 033 & 035-038, 042, 043, 046 & 047
Engines**

E.28. 40 CFR 60 Requirements - Subpart IIII [Generally Applicable Requirements]. These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, which have been adopted by reference in Rule 62-204.800(8), F.A.C. These emissions units shall comply with **Appendix 40 CFR 60 Subpart IIII “Generally Applicable Requirements,”** included with this permit, which includes applicable requirements that apply in general to all engines regulated under 40 CFR 60, Subpart IIII. This appendix also contains useful information like definitions (see 40 CFR 60.4219) that are specific to engines regulated under 40 CFR 60 Subpart IIII. [Rule 62-204.800(8), F.A.C.]

The specific conditions in this part of the subsection apply to the following group of emissions units:

Group 5: “New” stationary CI RICE greater than 500 HP	
E.U. ID No.	Brief Description
016	Emergency Generator - Biosolids Pelletization Facility (BPF) (EPA Tier 3 certified) (SWA of PBC ID# BPF-E1)
033	Emergency Generator - PBREF No. 2 (EPA Tier 2 certified)
042	Emergency Generator - Administration (EPA Tier 1 certified) (SWA of PBC ID# A-E1)
043	Emergency Generator - Materials Recovery Facility (MRF) (EPA Tier 2 certified) (SWA of PBC ID# MRF-E1)

Emissions from E.U. ID No. 033 are exhausted through a vertical stack with weather cap that is 16 feet in height, has an exit diameter of 0.83 feet, an exit flow rate of approximately 18,908 acfm, and an exit temperature of 853°F. This engine is also regulated pursuant to Permit No. 0990234-032-AC/PSD-FL-413C.

{Permitting note: This part of the subsection addresses “new” stationary CI RICE greater than 500 HP, with a displacement less than 10 liters per cylinder, that are located at a major source of HAP and that have been modified, reconstructed or commenced construction on or after 12/19/2002 and have a pre-2007 or 2007 & later model year. These RICE are not used as fire pumps.}

The following table provides important details for these emissions units:

E.U. ID No.	Engine Brake HP	Date of Construction	Model Year	Primary Fuel	Type of Engine	Displacement liters/cylinder (l/c)	Manufacturer
							Model #
							Engine Serial #
016	550	2009	2007	Diesel	Emergency	2.33	Kohler®
							350REOZDD
							2180993
033	3,705	2013	-	Diesel	Emergency	78 l/c, 18 cyl.	Cummings®
							QSK78-G12
							-
042	913	5/2/2006	2001	Diesel	Emergency	2.25	Caterpillar®
							3412

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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							BPG00204
043	775	2009	-	Diesel	Emergency	2.48	Cummings/Onan®
							DFEG 60 Hz
							-

Applicability

E.29. Applicability. Pursuant to 40 CFR 63.6590(c), these engines must comply with 40 CFR 63, Subpart ZZZZ by meeting the requirements of NSPS 40 CFR 60, Subpart IIII. Pursuant to 40 CFR 63.6590(c), no further requirements apply to the engine under 40 CFR 63, Subpart ZZZZ. [Rules 62-204.800(11) & (8), F.A.C.; and, 40 CFR 63.6590(c)]

Essential Potential to Emit (PTE) Parameters

E.30. Allowable Fuel. The stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

- Sulfur Content.** The sulfur content shall not exceed 15 ppm (0.0015% by weight) for non-road diesel fuel.
- Cetane and Aromatic.** The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.

[40 CFR 60.4207(b) and 40 CFR 80.510(b)]

E.31. Hours of Operation. The E.U. ID No. 033 emergency generator may operate up to 100 hours per year for maintenance and testing purposes. [Permit No. 0990234-032-AC/PSD-FL-413C; and, Rules 62-210.200 (PTE) and 62-212.400 (BACT), F.A.C.]

E.32. Hours of Operation.

- Emergency Situations.** There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 60.4211(e)]
- Maintenance and Testing.** Each RICE is authorized to operate 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. [40 CFR 60.4211(e)]
- Other Situations.** Each RICE cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4219]

Emission Standards and Limitations

E.33. The following emission standards and limitations apply to E.U. ID No. 016, Emergency Generator - Biosolids Pelletization Facility (BPF) (EPA Tier 3 certified):

- NMHC + NOx Emissions.** Non-methane hydrocarbons and nitrogen oxide emissions shall not exceed 4.0 g/KW-hr {equivalent to: 3.62 lbs/hour}. [40 CFR 60.4205(b)]
- CO Emissions.** Carbon monoxide emissions shall not exceed 3.5 g/KW-hr {equivalent to: 3.17 lbs/hour}. [40 CFR 60.4205(b)]
- PM emissions.** Particulate matter emissions shall not exceed 0.2 g/KW-hr {equivalent to: 0.18 lbs/hour}. [40 CFR 60.4205(b)]

E.34. The following emission standards and limitations apply to E.U. ID No. 033, Emergency Generator - PBREF No. 2 (EPA Tier 2 certified):

- NMHC + NOx Emissions.** Non-methane hydrocarbons and nitrogen oxide emissions shall not exceed 6.4 g/KW-hr {equivalent to: 39.0 lbs/hour}. [40 CFR 60.4205(b)]

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- b. **CO Emissions.** Carbon monoxide emissions shall not exceed 3.5 g/KW-hr {equivalent to: 21.3 lbs/hour}. [40 CFR 60.4205(b)]
- c. **PM emissions.** Particulate matter emissions shall not exceed 0.2 g/KW-hr {equivalent to: 0.2 lbs/hour}. [40 CFR 60.4205(b)]
[Permit No. 0990234-032-AC/PSD-FL-413C.]

E.35. The following emission standards and limitations apply to E.U. ID No. 042, Emergency Generator - Administration (EPA Tier 1 certified):

- a. **HC Emissions.** Hydrocarbon emissions shall not exceed 1.3 g/KW-hr or 1.0 g/HP-hr {equivalent to: 1.9 lbs/hour}. [40 CFR 60.4205(a)]
- b. **NOx Emissions.** Nitrogen oxide emissions shall not exceed 9.2 g/KW-hr or 6.9 g/HP-hr {equivalent to: 13.8 lbs/hour}. [40 CFR 60.4205(a)]
- c. **CO Emissions.** Carbon monoxide emissions shall not exceed 11.4 g/KW-hr or 8.5 g/HP-hr {equivalent to: 17.1 lbs/hour}. [40 CFR 60.4205(a)]
- d. **PM emissions.** Particulate matter emissions shall not exceed 0.54 g/KW-hr or 0.40 g/HP-hr {equivalent to: 0.8 lbs/hour}. [40 CFR 60.4205(a)]

E.36. The following emission standards and limitations apply to E.U. ID No. 043, Emergency Generator - Materials Recovery Facility (MRF) (EPA Tier 2 certified):

- a. **NMHC + NOx Emissions.** Non-methane hydrocarbons and nitrogen oxide emissions shall not exceed 6.4 g/KW-hr {equivalent to: 7.95 lbs/hour}. [40 CFR 60.4205(b)]
- b. **CO Emissions.** Carbon monoxide emissions shall not exceed 3.5 g/KW-hr {equivalent to: 4.35 lbs/hour}. [40 CFR 60.4205(b)]
- c. **PM emissions.** Particulate matter emissions shall not exceed 0.2 g/KW-hr {equivalent to: 0.25 lbs/hour}. [40 CFR 60.4205(b)]

E.37. Operation and Maintenance. The owner or operator must operate and maintain the stationary CI internal combustion engine 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 must meet the requirements of 40 CFR 89, 94 and/or 1068, as they apply. [40 CFR 60.4211(a)]

Monitoring of Operations

E.38. Hour Meter. The owner or operator must install a non-resettable hour meter if one is not already installed. [40 CFR 60.4209(a)]

Compliance Requirements

E.39. Compliance Requirements. Owner or operator must demonstrate compliance according to one of the methods below:

- a. **Certification.** Have purchased an engine certified according to 40 CFR 89 or 94, as applicable, for the same model year and maximum engine power.
- b. **Manufacturer Data.** Keep records of engine manufacturer data indicating compliance with the standards.
- c. **Vendor Data.** Keep records of control device vendor data indicating compliance with the standards.
- d. **Performance Test.** Conduct an initial performance test to demonstrate compliance with the emission standards according to the testing requirements in this section.
- e. **Similar Engine Tests.** Keep records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.
[40 CFR 60.4211(b)]

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Testing Requirements

- E.40. Performance Test.** Performance test must be conducted according to the in-use testing procedures in 40 CFR 1039, Subpart F. [40 CFR 60.4212]
- E.41. Engine Manufacturer's Recommendations and Instructions.** If the owner/operator does not install, configure, operate, and maintain the engine according to the manufacturer's recommendations and instructions, any required testing shall be completed in accordance with 40 CFR 60, Subpart III. [40 CFR 60.4212.]
- E.42. Not to exceed (NTE) Standards.** Exhaust emissions from stationary CI ICE that are complying with the emission standards must not exceed the not to exceed (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard, determined from the following equation: $NTE = (1.25) \times (\text{Standard})$. [40 CFR 60.4212]

Recordkeeping Requirements

- E.43. Required Records.** Owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214]
- E.44. Record Retention.**
- The owner or operator must keep records in a suitable and readily available form for expeditious reviews.
 - The owner or operator must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- [40 CFR 63.6660 and 40 CFR 63.10(b)(1)]

NSPS 40 CFR 60, Subpart A & III Requirements

- E.45. NSPS Requirements - Subpart A.** These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:
- 40 CFR 60.7, Notification and Recordkeeping
 - 40 CFR 60.8, Performance Tests
 - 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
 - 40 CFR 60.12, Circumvention
 - 40 CFR 60.13, Monitoring Requirements
 - 40 CFR 60.19, General Notification and Reporting Requirements,
- which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C.; except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. The applicable 40 CFR 60, Subpart A, General Provisions to which these emissions are subject to are found at 40 CFR 63.4218 and are included in **Appendix 40 CFR 60 Subpart A**. [Rule 62-204.800(8)(d), F.A.C.]
- E.46. 40 CFR 60 Requirements - Subpart III [Generally Applicable Requirements].** These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart III, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, which have been adopted by reference in Rule 62-204.800(8), F.A.C. These emissions units shall comply with **Appendix 40 CFR 60 Subpart III "Generally Applicable Requirements,"** included with this permit, which includes applicable requirements that apply in general to all engines regulated under 40 CFR 60, Subpart III. This appendix also contains useful information like definitions (see 40 CFR 60.4219) that are specific to engines regulated under 40 CFR 60 Subpart III. [Rule 62-204.800(8), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**Subsection E. Emission Units 016, 021, 031, 032, 033 & 035-038, 042, 043, 046 & 047
Engines**

The specific conditions in this part of the subsection apply to the following group of emissions units:

	Group 6: “New” stationary CI RICE less than 175 HP
E.U. ID No.	Brief Description
037	Emergency Generator - PBREP Scalehouse (EPA Tier 3 certified) (SWA of PBC ID# WTES-E1)
046	Emergency Generator - Landfill Scalehouse E2
047	Emergency Generator - MIS

{Permitting note: This part of the subsection addresses “new” stationary CI RICE less than 175 HP, with a displacement less than 10 liters per cylinder, that are located at a major source of HAP and that have been modified, reconstructed or commenced construction on or after 6/12/2006 and have a 2007 or later model year. This RICE is not used as a fire pump.}

The following table provides important details for this emissions unit:

E.U. ID No.	Engine Brake HP	Date of Construction	Model Year	Primary Fuel	Type of Engine	Displacement liters/cylinder (l/c)	Manufacturer
							Model #
							Engine Serial #
037	88.5	- ¹	-	Diesel	Emergency	1.1 (est.)	Caterpillar®
							D60-8S
							-
046	97.6	- ¹	-	Diesel	Emergency	4.4	Perkins®
							1104D.E44TG1 T3
							-
047	97.6	- ¹	-	Diesel	Emergency	4.4	Perkins®
							1104D.E44TG1 T3
							-

¹ Compliance Plan. These units were in the process of being purchased at the time the permit application had been submitted. The permittee shall notify the compliance office of the date when the unit was placed in service and when the readiness testing was completed. [Rule 62-213.440(2), F.A.C.; and, Applicant Request.]

Applicability

E.47. Applicability. Pursuant to 40 CFR 63.6590(c), these engines must comply with 40 CFR 63, Subpart ZZZZ by meeting the requirements of NSPS 40 CFR 60, Subpart IIII. Pursuant to 40 CFR 63.6590(c), no further requirements apply to the engine under 40 CFR 63, Subpart ZZZZ. [Rules 62-204.800(11) & (8), F.A.C.; and, 40 CFR 63.6590(c)]

Essential Potential to Emit (PTE) Parameters

E.48. Allowable Fuel. The stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

- Sulfur Content.** The sulfur content shall not exceed 15 ppm (0.0015% by weight) for non-road diesel fuel. {equivalent to: 0.0006 lb SO₂/hour}

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Subsection E. Emission Units 016, 021, 031, 032, 033 & 035-038, 042, 043, 046 & 047 Engines

- b. *Cetane and Aromatic.* The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.
[40 CFR 60.4207(b) and 40 CFR 80.510(b)]

E.49. Hours of Operation.

- a. *Emergency Situations.* There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 60.4211(f)(1)]
- b. *Maintenance and Testing.* Each RICE is authorized to operate 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. [40 CFR 60.4211(f)(2)]
- c. *Other Situations.* Each RICE cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. Each RICE may be operated for up to 50 hours per calendar year in non-emergency situations.
[40 CFR 60.4211(f)(3)]

Emission Standards and Limitations

- E.50. NMHC + NO_x Emissions.** Non-methane hydrocarbons and nitrogen oxide emissions shall not exceed 4.7 g/KW-hr {for E.U. ID No. 037 equivalent to: 0.22 + 0.68 lb/hour; for E.U. ID Nos. 046 & 047 equivalent to: 0.8 lb/hour}. [40 CFR 60.4205(b)]
- E.51. CO Emissions.** Carbon monoxide emissions shall not exceed 5.0 g/KW-hr {for E.U. ID No. 037 equivalent to: 0.73 lb/hour; for E.U. ID Nos. 046 & 047 equivalent to: 0.8 lb/hour}. [40 CFR 60.4205(b)]
- E.52. PM Emissions.** Particulate matter emissions shall not exceed 0.40 g/KW-hr {for E.U. ID No. 037 equivalent to: 0.06 lb/hour; for E.U. ID Nos. 046 & 047 equivalent to: 0.1 lb/hour}. [40 CFR 60.4205(b)]
- E.53. Operation and Maintenance.** The owner or operator must operate and maintain the stationary CI internal combustion engine 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 must meet the requirements of 40 CFR 89, 94 and/or 1068, as they apply. [40 CFR 60.4211(a)]

Monitoring of Operations

- E.54. Hour Meter.** The owner or operator must install a non-resettable hour meter if one is not already installed. [40 CFR 60.4209(a)]

Compliance Requirements

- E.55. Compliance Requirements.** Owner or operator must demonstrate compliance according to one of the methods below:
- a. *Certification.* Have purchased an engine certified according to 40 CFR 89 or 94, as applicable, for the same model year and maximum engine power.
- b. *Manufacturer Data.* Keep records of engine manufacturer data indicating compliance with the standards.
- c. *Vendor Data.* Keep records of control device vendor data indicating compliance with the standards.
- d. *Performance Test.* Conduct an initial performance test to demonstrate compliance with the emission standards according to the testing requirements in this section.
- e. *Similar Engine Tests.* Keep records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.
[40 CFR 60.4211(b)]

Testing Requirements

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emission Units 016, 021, 031, 032, 033 & 035-038, 042, 043, 046 & 047 Engines

- E.56. Performance Tests.** Any performance tests conducted pursuant to 40 CFR 60, Subpart IIII must be according to the in-use testing procedures in 40 CFR 1039, Subpart F. [40 CFR 60.4212]
- E.57. Engine Manufacturer's Recommendations and Instructions.** If the owner/operator does not install, configure, operate, and maintain the engine according to the manufacturer's recommendations and instructions, any required testing shall be completed in accordance with 40 CFR 60, Subpart IIII. [40 CFR 60.4212.]
- E.58. Not to exceed (NTE) Standards.** Exhaust emissions from stationary CI ICE that are complying with the emission standards must not exceed the not to exceed (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard, determined from the following equation: $NTE = (1.25) \times (Standard)$. [40 CFR 60.4212]

Recordkeeping Requirements

- E.59. Required Records.** Owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214]
- E.60. Record Retention.**
- The owner or operator must keep records in a suitable and readily available form for expeditious reviews.
 - The owner or operator must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- [40 CFR 63.6660 and 40 CFR 63.10(b)(1)]

NSPS 40 CFR 60, Subpart A & IIII Requirements

- E.61. NSPS Requirements - Subpart A.** These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:
- 40 CFR 60.7, Notification and Recordkeeping
 - 40 CFR 60.8, Performance Tests
 - 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
 - 40 CFR 60.12, Circumvention
 - 40 CFR 60.13, Monitoring Requirements
 - 40 CFR 60.19, General Notification and Reporting Requirements,
- which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C.; except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. The applicable 40 CFR 60, Subpart A, General Provisions to which these emissions are subject to are found at 40 CFR 63.4218 and are included in **Appendix 40 CFR 60 Subpart A**. [Rule 62-204.800(8)(d), F.A.C.]
- E.62. 40 CFR 60 Requirements - Subpart IIII [Generally Applicable Requirements].** These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, which have been adopted by reference in Rule 62-204.800(8), F.A.C. These emissions units shall comply with **Appendix 40 CFR 60 Subpart IIII "Generally Applicable Requirements,"** included with this permit, which includes applicable requirements that apply in general to all engines regulated under 40 CFR 60, Subpart IIII. This appendix also contains useful information like definitions (see 40 CFR 60.4219) that are specific to engines regulated under 40 CFR 60 Subpart IIII. [Rule 62-204.800(8), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**Subsection E. Emission Units 016, 021, 031, 032, 033 & 035-038, 042, 043, 046 & 047
Engines**

The specific conditions in this part of the subsection apply to the following group of emissions units:

	Group 7: “New” stationary CI RICE fire pumps greater than or equal to 175 HP and less than or equal to 500 HP
E.U. ID No.	Brief Description
031	Emergency Firewater Pump Engine A (351 HP) - PBREF No. 2 (EPA Tier 3 certified)
032	Emergency Firewater Pump Engine B (351 HP) - PBREF No. 2 (EPA Tier 3 certified)

These units are emergency fire pumps that provide emergency fire protection for the plant. The compression ignition reciprocating internal combustion engines used to power these fire pumps are fired on ultra-low sulfur diesel fuel.

These fire pumps are also regulated pursuant to Permit No. 0990234-032-AC/PSD-FL-413C.

Emissions from these engines are exhausted through vertical stacks with weather caps that are 12 feet in height, have an exit diameter of 6 inches, an exit flow rate of approximately 1,878 acfm, and an exit temperature of 817°F.

{Permitting note: This part of the subsection addresses “new” stationary CI RICE fire pumps greater than or equal to 175 HP and less than or equal to 500 HP, with a displacement less than 10 liters per cylinder, that are located at a major source of HAP and that have been modified, reconstructed or commenced construction on or after 6/12/2006 and have a 2007 or later model year. This RICE is used as a fire pump.}

The following table provides important details for these emission units:

E.U. ID No.	Engine Brake HP	Date of Construction	Model Year	Primary Fuel	Type of Engine	Displacement liters/cylinder (l/c)	Manufacturer
							Model #
							Engine Serial #
031	351	2011	2011	Diesel	Emergency	1.5	John Deere/Clarke®
							JW6H-UFADD0
							-
032	351	2011	2011	Diesel	Emergency	1.5	John Deere/Clarke®
							JW6H-UFADD0
							-

Applicability

E.63. Applicability. Pursuant to 40 CFR 63.6590(c), these engines must comply with 40 CFR 63, Subpart ZZZZ by meeting the requirements of NSPS 40 CFR 60, Subpart IIII. Pursuant to 40 CFR 63.6590(c), no further requirements apply to the engine under 40 CFR 63, Subpart ZZZZ. [Rules 62-204.800(11) & (8), F.A.C.; and, 40 CFR 63.6590(c)]

Essential Potential to Emit (PTE) Parameters

E.64. Allowable Fuel. The stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

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Subsection E. Emission Units 016, 021, 031, 032, 033 & 035-038, 042, 043, 046 & 047 Engines

- a. *Sulfur Content.* The sulfur content shall not exceed 15 ppm (0.0015% by weight) for non-road diesel fuel.
 - b. *Cetane and Aromatic.* The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.
 - c. *Use of Existing Fuel.* Any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.
- [40 CFR 60.4207(b) and 40 CFR 80.510(c)]

E.65. Hours of Operation.

- a. *Emergency Situations.* There is no time limit on the use of emergency stationary RICE in emergency situations.
 - b. *Maintenance and Testing.* These engines are authorized to operate 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.
 - c. *Non-emergency Situations.* This engine may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing.
- [40 CFR 60.4211(f)]

Emission Standards and Limitations

(apply to each fire pump)

- E.66. NMHC + NO_x Emissions.** Non-methane hydrocarbons and nitrogen oxide emissions shall not exceed 4.0 g/KW-hr {equivalent to: 2.3 lbs/hour}. [40 CFR 60.4205(c); and, Permit No. 0990234-032-AC/PSD-FL-413C.]
- E.67. CO Emissions.** Carbon monoxide emissions shall not exceed 3.5 g/KW-hr {equivalent to: 2.0 lbs/hour}. [40 CFR 60.4205(c); and, Permit No. 0990234-032-AC/PSD-FL-413C.]
- E.68. PM Emissions.** Particulate matter emissions shall not exceed 0.2 g/KW-hr {equivalent to: 0.12 lbs/hour}. [40 CFR 60.4205(c); and, Permit No. 0990234-032-AC/PSD-FL-413C.]
- E.69. Operation and Maintenance.** The owner or operator must operate and maintain the stationary CI internal combustion engines 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. This RICE must be maintained and operated to meet the emission standards over the entire life of the engine. [40 CFR 60.4206, 4211(a)(1), (2) & (3)]

Monitoring of Operations

- E.70. Hour Meter.** The owner or operator must install a non-resettable hour meter if one is not already installed. [40 CFR 60.4209(a)]

Compliance Requirements

- E.71. Engine Certification Requirements.** The owner or operator must comply with the emissions standards specified above by having purchased an engine certified by the manufacturer to meet those limits. The engine must have been installed and configured according to the manufacturer's emission-related specifications. [40 CFR 60.4211(c)]
- E.72. Compliance Requirements Due to Loss of Certification.** If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.

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In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. [40 CFR 60.4211(g)(2)]

Testing Requirements

E.73. Performance Test. Performance test must be conducted according to the in-use testing procedures in 40 CFR 1039, Subpart F. [40 CFR 60.4212]

Recordkeeping Requirements

E.74. Required Records. Owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214]

E.75. Maintenance Records.

- a. Records of all required maintenance performed on the air pollution control and monitoring equipment.
- b. The owner or operator must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the stationary RICE and after-treatment control device (if any) are operated and maintained according to its own maintenance plan.

[40 CFR 63.6655]

E.76. Record Retention.

- a. The owner or operator must keep records in a suitable and readily available form for expeditious reviews.
- b. The owner or operator must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

[40 CFR 63.6660 and 40 CFR 63.10(b)(1)]

NSPS 40 CFR 60, Subpart A & IIII Requirements

E.77. NSPS Requirements - Subpart A. These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:

- 40 CFR 60.7, Notification and Recordkeeping
- 40 CFR 60.8, Performance Tests
- 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
- 40 CFR 60.12, Circumvention
- 40 CFR 60.13, Monitoring Requirements
- 40 CFR 60.19, General Notification and Reporting Requirements,

which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C.; except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. The applicable 40 CFR 60, Subpart A, General Provisions to which these emissions are subject to are found at 40 CFR 63.4218 and are included in **Appendix 40 CFR 60 Subpart A**. [Rule 62-204.800(8)(d), F.A.C.]

E.78. 40 CFR 60 Requirements - Subpart IIII [Generally Applicable Requirements]. These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, which have been adopted by reference in Rule 62-204.800(8), F.A.C. These emissions units shall comply with **Appendix 40 CFR 60 Subpart IIII "Generally Applicable Requirements,"** included with this permit, which includes applicable requirements that apply in general to all engines regulated under 40 CFR 60, Subpart IIII. This appendix also contains

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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useful information like definitions (see 40 CFR 60.4219) that are specific to engines regulated under 40 CFR 60 Subpart III. [Rule 62-204.800(8), F.A.C.]

THE FOLLOWING SPECIFIC CONDITIONS APPLY TO ALL GROUPS OF EMISSIONS UNITS

Operation and Maintenance Requirements

{Permitting note: TABLE E-1. SUMMARY OF MAINTENANCE REQUIREMENTS FOR ENGINES, summarizes maintenance requirements under 40 CFR 63, Subpart ZZZZ for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Test Methods and Procedures

E.79. Common Testing Requirements. Any tests, if required, shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Recordkeeping and Reporting Requirements

E.80. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

NESHAP 40 CFR 63, Subpart A & ZZZZ Requirements

- E.81. 40 CFR 63 Requirements - Subpart A.** These emissions units shall comply with all applicable requirements of 40 CFR 63, Subpart A, General Provisions, which have been adopted by reference in Rule 62-204.800(11)(d)1., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 63.5(e), 40 CFR 63.5(f), 40 CFR 63.6(g), 40 CFR 63.6(h)(9), 40 CFR 63.6(j), 40 CFR 63.13, and 40 CFR 63.14. The applicable 40 CFR 63, Subpart A, General Provisions to which these emissions are subject to are found at 40 CFR 63.6665 and are included in **Appendix 40 CFR 63 Subpart A**. [Rule 62-204.800(11)(d)1., F.A.C.]
- E.82. 40 CFR 63 Requirements - Subpart ZZZZ [Generally Applicable Requirements].** These emissions units shall comply with all applicable requirements of 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), which have been adopted by reference in Rule 62-204.800(11)(b), F.A.C. These emissions units shall comply with **Appendix 40 CFR 63 Subpart ZZZZ “Generally Applicable Requirements,”** included with this permit, which includes applicable requirements that apply in general to all engines regulated under 40 CFR 63 Subpart ZZZZ. This appendix also contains useful information like provisions that are not delegated to state or local agencies (see 40 CFR 63.6670) and contains definitions (see 40 CFR 63.6675) that are specific to engines regulated under 40 CFR 63 Subpart ZZZZ. [Rule 62-204.800(11)(b), F.A.C.]

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