Lee County Department of Solid Waste Management

Lee County Resource Recovery Facility

Facility ID No. 0710119
Lee County

Title V Air Operation Permit Revision

Final Permit No. 0710119-011-AV
(1st Revision of Title V Air Operation Permit No. 0710119-007-AV)

Permitting Authority:

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Department of Environmental Protection
Division of Air Resource Management
Office of Permitting and Compliance

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Final Permit No. 0710119-011-AV
Lee County Resource Recovery Facility
Facility ID No. 0710119
Title V Air Operation Permit Revision

The purpose of this permit is to revise the Title V air operation Permit No. 0710119-007-AV for the ammonia monitoring requirements on Unit 3. This existing facility is located at 10500 Buckingham Road, Fort Myers, in Lee County. UTM Coordinates are: Zone 17, 424.21 km East and 2945.70 km North. Latitude is: 26° 37' 54" North; and, Longitude is: 81° 45' 41" 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: January 26, 2012
1st Revision Effective Date: November 16, 2012
Renewal Application Due Date: June 15, 2016
Expiration Date: January 26, 2017

Executed in Tallahassee, Florida

(Electronic Signature)

Office of Permitting and Compliance
Division of Air Resource Management
Department of Environmental Protection
Tallahassee, Florida

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SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

The Lee County Resource Recovery Facility consists of: three municipal solid waste combustors (Unit Nos. 1, 2 and 3) with auxiliary burners; ash storage and processing facilities; a metals recovery system; cooling towers; and, ancillary support equipment. The total capacity of the Lee County Resource Recovery Facility is 1,980 tons/day (TPD) of municipal solid waste fuel with a nominal higher heating value (HHV) of 5,000 Btu/lb. The gross nominal electric generating capacity of the facility is 60 megawatts (MW). The facility is owned by Lee County and is currently operated by Covanta Lee, Inc.

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

Subsection B. Summary of Emissions Units.

E.U. ID No.	Brief Description
Regulated Emissions Units	
001	Municipal Waste Combustor Unit 1
002	Municipal Waste Combustor Unit 2
006	Municipal Waste Combustor Unit 3
004	Ash Handling System
008	Diesel Emergency Generator - 330 horsepower (HP)
009	Fire Pump No. 1 (Diesel Emergency Generator) - 305 HP
010	Fire Pump No. 2 (Diesel Emergency Generator) - 300 HP
011	Fire Pump No. 3 (Diesel Emergency Generator) - 64 HP (Waste-to-Energy (WTE) Transfer Station)
Unregulated Emissions Units and/or Activities	
005	Cooling Towers

Subsection C. Applicable Requirements.

Based on the Title V air operation permit renewal application received on August 23, 2010, this facility is a major source of hazardous air pollutants (HAP). Because this facility operates stationary reciprocating internal combustion engines, it is subject to regulation under 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The existing facility is a PSD major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of important applicable regulations is shown in the following table.

Applicable Requirement	E.U. ID No(s).
Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD)	001, 002, 004 & 006
Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT)	001, 002 & 006
40 CFR 60, Subpart A, New Stationary Source Performance Standards (NSPS) General Provisions	001, 002 & 006
40 CFR 60, Subpart Cb, Emissions Guidelines (EG) and Compliance Times for Large Municipal Waste Combustors	001, 002 & 004 (ash conveying systems)
40 CFR 60, Subpart Eb, Standards of Performance for Large Municipal Waste Combustors	006
Rule 62-296.416, F.A.C., Waste-to-Energy Facilities	001, 002 & 006
40 CFR 63, Subpart A, General Provisions	008 - 011
40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE)	008 - 011

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

FW3. Odor Control. No objectionable odors are allowed from this facility. The truck access doors to the unit shall remain closed except during normal working shifts when municipal solid waste (MSW) is being received at the storage pit area. To minimize odors at the unit, a negative pressure shall be maintained on the tipping floor and air from within the building will be used as combustion air. [Permit Nos. PSD-FL-151D/0710119-005-AC, Condition III.D.2. & PSD-FL-151, Condition 4.c. and Rule 62-296.320(2), F.A.C.]

FW4. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]

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

FW5. 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.]

FW6. 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. All roads shall be adequately paved and vacuum swept, if appropriate, to keep free from visible dust.
b. Speed limit signs shall be posted.
c. Residue from the grates, grate siftings, and ash from the combustor/boiler and fabric filter hoppers during normal operations shall be discharged into the ash quenching system as to minimize visible dust.
d. The ash/residue in the ash handling building shall remain sufficiently moist to prevent dust during storage and handling operations.

[Rule 62-296.320(4)(c), F.A.C.; and, PSD-FL-151, Condition 4.g.]

FW7. Facility Fugitive (Unconfined) Emissions. Fugitive emissions at this facility shall be adequately controlled at all times. All roads shall be adequately paved, and vacuum swept if appropriate, to minimize accumulations of ash and dust. Unprocessed refuse storage areas which must be open for operational purposes (e.g., tipping floor or the refuse bunker while trucks are entering and leaving) shall be under negative air pressure. [Permit No. PSD-FL-151D/0710119-005-AC and Rule 62-296.320(4)(c), F.A.C.]

Annual Reports and Fees

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

FW8. Annual Operating Report. The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rule 62-210.370(3), F.A.C.]

FW9. Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: http://www.dep.state.fl.us/air/emission/tvfee.htm. [Rule 62-213.205, F.A.C.]

FW10. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V permit was effective. [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

FW11. Prevention of Accidental Releases (Section 112(r) of CAA).

a. As required by Section 112(r)(7)(B)(iii) of the CAA and 40 CFR 68, the owner or operator shall submit an updated Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center.
b. As required under Section 252.941(1)(c), F.S., the owner or operator shall report to the appropriate representative of the Division of Emergency Management (DEM), as established by department rule, within one working day of discovery of an accidental release of a regulated substance from the stationary source, if the owner or operator is required to report the release to the United States Environmental Protection Agency under Section 112(r)(6) of the CAA.
c. The owner or operator shall submit the required annual registration fee to the DEM on or before April 1, in accordance with Part IV, Chapter 252, F.S., and Rule 9G-21, F.A.C.
d. Any required written reports, notifications, certifications, and data required to be sent to the DEM, should be sent to: Division of Emergency Management, Division of Emergency Management, 2555 Shumard Oak Boulevard, Tallahassee, FL 32399-2100, Telephone: (850) 413-9970, Fax: (850) 488-1739.
e. Any Risk Management Plans, original submittals, revisions, or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
f. Any required reports to be sent to the National Response Center, should be sent to: National Response Center, EPA Office of Solid Waste and Emergency Response, USEPA (5305 W), 401 M Street SW, Washington, D.C. 20460, Telephone: (800) 424-8802.
g. Send the required annual registration fee using approved forms made payable to: Cashier, Division of Emergency Management, State Emergency Response Commission, 2555 Shumard Oak Boulevard, Tallahassee, FL 32399-2149.

[Part IV, Chapter 252, F.S.; and, Rule 9G-21, F.A.C.]

Subsection A. Emissions Unit(s) 001 & 002

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

E.U. ID No.	Brief Description
001	Municipal Waste Combustor Unit 1
002	Municipal Waste Combustor Unit 2

Emissions Unit ID Nos. 001 and 002 are Distral Termica manufactured municipal solid waste (MSW) combustors designated as "Unit 1" and "Unit 2," respectively. The units are identical in configuration. The serial numbers are A2900 and A2901. Each unit consists of a mass burn water wall boiler with two auxiliary natural gas/propane fired burners. The combustion system incorporates the technology of German-based Martin GmbH. Waste is combusted at furnace temperatures exceeding 1,800 degrees Fahrenheit, and reduced to an inert ash residue. The burners are used to fire the MSW combustors during startup, shutdown, and at other times when necessary and consistent with good combustion practices.

Each municipal waste combustor (MWC) has a nominal design rated capacity of 660 tons MSW per day and 186,200 lbs/hour steam production with MSW having a heating value of 5,000 Btu/lb. Short term capacity is restricted by limiting steam production to 186,200 lbs/hour, which effectively limits heat input. The net design steam enthalpy for useful work is 1,158 Btu/lb. These units produce up to 40 MW of electricity daily.

Odor is controlled by drawing combustion air from the refuse tipping floor area. Spray dry absorbers and baghouses are used for the control of acid gases and particulate matter, selective non-catalytic reduction (SNCR) systems for the control of nitrogen oxides (NOx), and activated carbon injection (ACI) systems for the control of mercury (Hg) and certain organic emissions. Activated carbon is injected into the flue gases prior to the baghouses to control Hg emissions. Captured dry ash particles fall into hoppers and are transported by an enclosed conveyor system to the bottom ash discharger where they are wetted to prevent dust, and mixed with the bottom ash.

All three units, Units 1, 2 and 3 (see Subsection III.B.), exhaust to a common stack consisting of three separate flues. The stack parameters for each flue are: height, 275 feet; diameter, 6.2 feet; exit temperature, 270 degrees F; and, actual stack gas flow rate, 116,943 acfm.

Unit 1 began commercial operation on August 20, 1994, while Unit 2 began commercial operation on August 27, 1994.

{Permitting note(s): These emissions units are regulated under 40 CFR 60, Subpart Cb, Emissions Guidelines (EG) and Compliance Times for Large Municipal Waste Combustors 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-151, as amended]; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT); and, Florida Electrical Power Plant Site Certifications [PA90-30].}

Equipment and Operational Limitations

A.1. Name Plate. The combustor boilers shall have a metal name plate affixed in a conspicuous place on the shell showing the manufacturer, model number, type of waste, and rated capacity. [Rule 62-4.160(2), F.A.C.; and, PSD-FL-151.]

A.2. Boiler Stack Height. The height of the boiler exhaust stack shall not be less than 275 feet above grade or the height determined to be good engineering practice. [Rule 62-4.160(2), F.A.C.; and, PSD-FL-151.]

Essential Potential to Emit (PTE) Parameters

A.3. 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, PSD-FL-151.]

A.4. Capacity. The following maximum values (capacities) based on a heating value of 5,000 Btu/lb of MSW shall not be exceeded:

a. 660 tons/day (TPD) individual MWC unit throughput of MSW;

b. 275 MMBtu/hr individual MWC unit heat input; and,
c. 186,200 lbs/hr individual MWC unit steam production on a 4-hour block arithmetic average.
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. [Rule 62-4.160(2) & 62-210.200 (PTE), F.A.C.; 40 CFR 60.31b & 40 CFR 60.58b(j); and, PSD-FL-151, Condition 4.i.]

A.5. 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.6. MWCs - Methods of Operation - Fuels.

a. *Allowable Fuels.*
(1) The only fuels allowed to be burned in the MWCs are municipal solid waste (MSW), with natural gas/propane as an auxiliary fuel. Other fuels or wastes, not specifically listed herein, shall not be burned without written prior approval from the Department. Lee County shall minimize emissions of mercury through a battery collection program.[1] Fuels or wastes specifically authorized herein do not require prior Department approval before combustion.
(2) 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), Florida Statutes (2010).

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) explosives;
(i) 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) nickel-cadmium batteries pursuant to Section 403.7192(3), F.S. [1];
(d) mercury containing devices and lamps pursuant to Sections 403.7186(2) & (3) , F.S. [1]

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 either:
(1) well mixed with MSW on the tipping floor; or
(2) alternately charged with MSW in the hopper.
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 5%, by weight, of the facility's total fuel. [1] 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.
(1) Unsorted mixtures of construction and demolition debris, or that fraction of sorted construction and demolition debris that is predominantly non-combustible. Non-combustible construction and demolition debris shall include concrete, metals, gypsum products, plaster, rock, brick, and masonry.[1]
(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 and 62-213.440, F.A.C.; and, [1] PSD-FL-151B, Condition 4.f.]

A.7. Auxiliary Burners - Methods of Operation - Fuels. Auxiliary burners for each MWC shall be fired only with natural gas or propane. Natural gas or propane may be used as a supplemental fuel during warm-up, startups, shutdowns, and at other times when necessary and consistent with good combustion practices. These devices shall be used at startup during the introduction of MSW fuel until design furnace gas temperature is achieved. [Rules 62-4.160(2), 62-210.200 (PTE), 62-213.410, & 62-213.440, F.A.C.; and, PSD-FL-151B.]

Air Pollution Control Technologies and Measures

A.8. Mercury Removal Procedures. The owner or operator must operate the pollution control equipment at the facility under procedures designed to minimize emissions of mercury and maximize the removal of mercury from the flue gas of the facility. An activated carbon injection system for mercury control approved by the Department shall be operated continuously whenever MSW is burned at the facility. The emissions of mercury from the facility shall not exceed the standard established in the conditions of this permit. [PSD-FL-151.]

A.9. 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.]

A.10. Activated Carbon Injection Rate. The owner or operator shall determine through Department approved operational testing, the feed rate for activated carbon injection which provides the most effective mercury removal over the normal operating regime for the facility while achieving the levels stated hereafter. Following determination of the feed rate, the owner or operator shall not reduce it without specific written permission from the Department. [PSD-FL-151.]

Emission Limitations and Standards

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

Unless otherwise specified, the averaging times for Specific Conditions **A.11. - A.23.** are based on the specified averaging time of the applicable test method.

{Permitting note: Most of the current emission standards and limitations from the original PSD-FL-151 permit (BACT) remain more stringent than the 40 CFR 60 Subpart Cb (including the May 10, 2006 federal amendments). The May 10, 2006 amendments did change some of the emission standards and limitations for Units 1 and 2. Three (3) air pollutant standards/limitations were lowered under the amendments: Hg, cadmium (Cd) and Pb.}

Stack Emissions

A.11. Particulate Matter.

a. The emission limit for particulate matter (PM)/PM_{10} contained in the gases discharged to the atmosphere is 22.9 milligrams per dry standard cubic meter (mg/dscm), corrected to 7 percent oxygen. [Rule 62-204.800(9)(b)3.a., F.A.C.; 40 CFR 60.33b(a)(1)(i); and, Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.]
b. PM emissions shall not exceed 5.34 lbs/hour per unit. [Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.]

A.12. 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, Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.]

A.13. Cadmium. The emission limit for cadmium (Cd) contained in the gases discharged to the atmosphere is 35 micrograms per dry standard cubic meter (µg/dscm), 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.14. Mercury.

a. The emission limit for mercury (Hg) contained in the gases discharged to the atmosphere is 50 micrograms per dry standard cubic meter (µg/dscm) 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, Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.]
b. Hg emissions shall not exceed 0.0271 lbs/hour per unit. [Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.]

A.15. Lead.
a. The emission limit for lead (Pb) contained in the gases discharged to the atmosphere is 400 micrograms per dry standard cubic meter (µg/dscm), corrected to 7 percent oxygen. [Rule 62-204.800(9)(b)3.c., F.A.C.; and, 40 CFR 60.33b(a)(4); and, Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.]
b. Pb emissions shall not exceed 0.108 lbs/hour per unit. [Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.]

A.16. Sulfur Dioxide.
a. As determined by the continuous emissions monitoring system (CEMS), the emission limit for sulfur dioxide (SO_2) contained in the gases discharged to the atmosphere is 29 parts per million by volume (ppmv) or 20 percent of the potential sulfur dioxide emission concentration (80-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, Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.]
b. SO_2 emissions shall not exceed 41 lbs/hour per unit. [Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.]

A.17. Sulfuric Acid Mist. Sulfuric acid mist (SAM) emissions shall not exceed 9.85 lbs/hour per unit. [Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.i.]

A.18. Hydrogen Chloride.
a. The emission limit for hydrogen chloride (HCl) contained in the gases discharged to the atmosphere is 25 parts per million by volume (ppmv) 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, Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.]
b. HCl emissions shall not exceed 17.70 lbs/hour per unit. [Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.]

A.19. Dioxin/Furan.
a. 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 (ng/dscm) (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, Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.]
b. D/F emissions shall not exceed 7.0×10^{-6} lbs/hour per unit. [Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.]

A.20. Nitrogen Oxides.
a. As determined by the CEMS, the emission limit for nitrogen oxides (NOx) contained in the gases discharged to the atmosphere is 180 parts per million by volume (ppmv), corrected to 7 percent oxygen, dry basis. Compliance with this emission 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, Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.]

b. NOx emissions shall not exceed 80 lbs/hour per unit. [Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.]

A.21. Carbon Monoxide.

a. As determined by the CEMS, the emission limit for carbon monoxide (CO) contained in the gases discharged to the atmosphere from a mass burn waterwall type municipal waste combustor technology is 100 parts per million by volume, measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent oxygen, dry basis, and calculated on a 4-hour block average. [Rule 62-204.800(9)(b)3.i., F.A.C.; and, 40 CFR 60.34b(a); and, Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.]

b. CO emissions shall not exceed 27.2 lbs/hour per unit. [Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.]

A.22. Ammonia Slip. In no case shall ammonia slip from exhaust gases exceed 50 parts per million, by volume. [Permit No. 0710119-008-AC/PSD-FL-151E, Condition 2.]

Fugitive Ash Emissions

A.23. 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.24. 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. Failures that are caused entirely or in part by poor maintenance, careless operation, any other preventable upset condition, or preventable equipment breakdown shall not be considered malfunctions.[1] [Rule 62-210.700(1)&(5), F.A.C.; [1] PSD-FL-151B; and, authorized by the Department on November 1, 2000.]

A.25. NSPS Startup, Shutdown and Malfunction Provisions.

a. 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.*, boiler waterwall tube failure) or a loss of combustion air 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. During such periods of 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). [40 CFR 60.38b & 40 CFR 60.58b(a)(1)(iii)]

b. During a loss of boiler water level control or loss of combustion air control malfunction period as specified in paragraph (a)(1)(iii) of 40 CFR 60.58b, a diluent cap of 14 percent for oxygen or 5 percent

for carbon dioxide may be used in the emissions calculations for sulfur dioxide and nitrogen oxides. [40 CFR 60.38b & 40 CFR 60.58b(b)(8)]

{Permitting note: See Appendices Cb and Eb.}

A.26. Best Operational Practices. The owner or operator shall maintain a manual that identifies and describes best operational practices that will be used during periods of startup, shut down and malfunction at this facility. [PSD-FL-151B.]

A.27. 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. and PSD-FL-151, Condition 3.f.(iii).]

Continuous Monitoring Requirements

{Permitting Note: The following continuous monitors are installed on these emissions units: steam flow, inlet temperature to baghouse, opacity, SO_2, NOx, CO, O_2 and carbon dioxide (CO_2.)}

A.28. 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).]

A.29. Inlet Temperature to Particulate Matter Control Device (Baghouse). 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).]

A.30. Pressure Drop Monitoring Equipment for Baghouse. The baghouse shall be equipped with pressure drop monitoring equipment. [PSD-FL-151A, Condition 4.e.]

A.31. 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 (SO_2), nitrogen oxides (NOx) and carbon monoxide (CO). [Rule 62-213.440, F.A.C.; 40 CFR 60.38b; 40 CFR 60.58b(c)(8) (opacity); 40 CFR 60.58b(e)(5) (SO_2); 40 CFR 60.58b(h)(4) (NOx) & 40 CFR 60.58b(i)(3) (CO); and PSD-FL-151.]

A.32. Oxygen (O_2) or Carbon Dioxide (CO_2) 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.; 40 CFR 60.38b, 40 CFR 60.58b(b); and PSD-FL-151.]

Test Methods and Procedures

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

A.33. 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	Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content. Methods shall be performed as necessary to support other methods.
EPA Methods 5, 17,	Methods for Determining PM/PM_{10} Emissions. The minimum sample volume

Method(s)	Description of Method(s) and Comment(s)
201[1] or 201A	shall be 1.7 cubic meters.
EPA Methods 6, 6A or 6C	Determination of SO_2 Emissions (6C is Instrumental).
EPA Methods 7, 7C, 7E or 19	Determination of NOx Emissions (7E is Instrumental).
EPA Method 8	Determination of SAM Emissions.
EPA Method 9	Visual Determination of the Opacity of Emissions (VE).
EPA Method 10	Measurement of CO Emissions (Instrumental). The method shall be based on a continuous sampling train.
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.[2]
EPA Method 26 or 26A	Determination of HCl Emissions from Stationary Sources. On January 8, 2010, the Department approved changes in the EPA Method 26 testing methodology.[3]
EPA Method CTM-027 (Conditional Test Method) [1]	Procedure for Collection and Analysis of Ammonia. *{Note: This is an EPA conditional test method. The minimum detection limit shall be 1 ppm.}*
EPA Method 29	Determination of Metal (e.g., Cd, Hg and Pb) Emissions from Stationary Sources.

[1] Method CTM-027 is published on EPA's Technology Transfer Network web site at http://www.epa.gov/ttn/emc/ctm.html. 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. SAM Testing: Demonstration of compliance with the SO_2 emission limit shall be used as a surrogate for determining compliance with the SAM emission limit. If the Department has reason to believe that the SAM limit is not being met, it may require a special compliance test to be performed in accordance with Rule 62-297.310(7)(b), F.A.C.[1] [Chapter 62-297, F.A.C.; Rule 62-204.800(9)(b)7., F.A.C.; [1] PSD-FL-151E; [2] Appendix ATP, U.S. EPA Alternative Test Procedure Approval dated June 3, 2004; and, [3] Appendix ASP, DEP Approval dated January 8, 2010.]

A.34. 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.35. 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). The owner or operator shall conduct a performance test for HCl emissions on an annual basis (no more than 12 calendar months following the previous performance test). [Rules 62-297.310(7) & 62-204.800(9)(b)7., F.A.C.; and Permit No. 0710119-008-AC/PSD-FL-151E, Condition 3.c.]

A.36. Compliance Test Prior To Renewal. Prior to permit renewal, Emissions Unit ID Nos. 001 and 002 shall be tested to demonstrate compliance with the emission limitations and standards for ammonia slip. [Rules 62-297.310(7)(a)3., F.A.C.; and Permit No. 0710119-008-AC/PSD-FL-151E, Condition 3.c.]

A.37. Dioxins/Furans. The alternative performance testing schedule for dioxins/furans (D/F) specified in 40 CFR 60.58b(g)(5)(iii) 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.38. Test Protocol. A test protocol shall be submitted for approval to the Department's (DEP) South District (SD) Office and to the Bureau of Air Regulation at least 30 (thirty) days prior to testing. [Permit No. 0710119-008-AC/PSD-FL-151E, Condition 3.c.]

A.39. Compliance Testing Conditions. The weight of MSW being fed to each combustor during the stack test shall be continuously monitored and recorded by a weighing device which is properly calibrated. Stack tests shall be conducted upstream and downstream of the applicable control device for SO_2, Hg and HCl. Soot blowers shall be operated in a mode consistent with the normal cleaning requirements of the system during the compliance testing. [Permit No. 0710119-008-AC/PSD-FL-151E, Condition 3.c.]

A.40. VE Testing Conditions. At least one one-hour VE test shall be conducted simultaneously with particulate matter testing for the emissions from the dry scrubber/baghouse. At least one 30-minute VE test shall be conducted for the ash handling building. [Permit No. 0710119-008-AC/PSD-FL-151E, Condition 3.c.]

A.41. PM Testing Conditions. Testing of the MWC units for particulate matter emissions shall be performed using three one-hour test runs so that two one-hour runs are conducted during normal operation and one one-hour run is conducted during soot blowing conditions. [Permit No. 0710119-008-AC/PSD-FL-151E, Condition 3.c.]

Recordkeeping and Reporting Requirements

A.42. Reporting Schedule. The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
Excess Emissions from Malfunctions, if requested by the Compliance Authority	Every 3 months (quarter)	**A.43.**
Excess Emissions	Every 3 months (quarter)	**A.44.**
NSPS Excess Emissions and Monitoring System Performance	Every 6 months (semi-annual), except when more frequent reporting is specifically required	**A.55.**

[Rule 62-210.700(6), F.A.C.; and, 40 CFR 60, Subpart A.]

A.43. 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.44. Quarterly Excess Emissions Report. Submit to the Department a written report of emissions in excess of emission limiting for each calendar quarter. The nature and cause of the excess emissions shall be explained. If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report quarterly stating that no excess emissions occurred. This report does not relieve the owner or operator of the legal liability for violations. [PSD-FL-151, Condition 3.f.(v).]

A.45. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

A.46. Records of Non-MSW. The facility 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.6.e.** and **A.6.f.**). The following records shall be prepared and maintained to demonstrate compliance with the segregated non-MSW percentage limitations:

a. *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.6.e.** and **A.6.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.

b. *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 by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% limitation. [1]

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 and 62-213.440, F.A.C.; and, [1] PSD-FL-151B.]

A.47. 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). [Rule 62-204.800(9)(b)7.b, F.A.C.]

A.48. Records. The owner or operator shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the conditions of this permit. This file shall include but not be limited to:

a. the data collected from in-stack monitoring requirements;
b. the records of MSW input rate;
c. the results of all source tests or performance tests;
d. the amount of ammonia, activated carbon, or other chemicals used for NOx and mercury control;
e. calibration logs for all instruments; and,
f. maintenance/repair logs for any worked performed which is subject to this permit.

The permittee shall keep accurate records of MSW being fired to each combustor along with the weight percent of used tires in the waste stream being combusted on an estimated weekly basis for the entire life of this facility. [Rule 62-213.440(1)(b)2.b., F.A.C.; and, PSD-FL-151, Condition 3.e.]

Operator Practices, Training and Certification

A.49. Operating Practices. The owner or operator shall comply with the operating practices as set forth in 40 CFR 60.53b(b) and (c) of 40 CFR 60, Subpart Eb. [Rule 62-204.800(9)(b)4., F.A.C.; and, 40 CFR 60.34b & 40 CFR 60.53b.]

A.50. 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.]

A.51. Certified Personnel. A list of all certified personnel shall be submitted to the DEP SD Office. The owner or operator shall inform the DEP SD Office of any planned training sessions so that Department staff may attend any such training sessions related to operation and maintenance of air pollution control devices. [PSD-FL-151.]

EG 40 CFR 60 Requirements

A.52. 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.53. 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 Requirements

{Permitting note(s): 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.}

A.54. 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.55. 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.56. 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)(h), F.A.C.]

Subsection B. Emissions Unit 006

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

E.U. ID No.	Brief Description
006	Municipal Waste Combustor Unit 3

Emissions Unit ID No. 006 is a Riley Power manufactured municipal solid waste (MSW) combustor designated as "Unit 3." The unit consists of a mass burn water wall boiler with two auxiliary natural gas/propane fired burners. The combustion system incorporates the technology of German-based Martin GmbH. Waste is combusted at furnace temperatures exceeding 1,800 degrees Fahrenheit, and reduced to an inert ash residue. The burners are used to fire the MSW combustors during startup, shutdown, and at other times when necessary and consistent with good combustion practices.

This municipal waste combustor (MWC) has a nominal design rated capacity of 660 tons MSW per day and 197,400 lbs/hour steam production with MSW having a heating value of 5,000 Btu/lb. Short term capacity is restricted by limiting steam production to 197,400 lbs/hour, which effectively limits heat input. The net design steam enthalpy for useful work is 1,158 Btu/lb. This unit produces up to 20 MW of electricity daily.

Odor is controlled by drawing combustion air from the refuse tipping floor area. Unit 3 is substantially similar to Units 1 and 2, albeit with additional controls as required in order to comply with the more stringent NSPS 40 CFR 60 Subpart Eb and BACT limits. A spray dry absorber and baghouse are used for the control of acid gases and particulate matter, a selective non-catalytic reduction (SNCR) system and an optional flue gas recirculation (FGR) system for the control of nitrogen oxides (NOx), and an activated carbon injection (ACI) system for the control of mercury (Hg) and certain organic emissions. Activated carbon is injected into the flue gases prior to the baghouse to control Hg emissions. Captured dry ash particles fall into hoppers and are transported by an enclosed conveyor system to the bottom ash discharger where they are wetted to prevent dust, and mixed with the bottom ash.

All three units, Units 1, 2 (see Subsection III.A.) and 3, exhaust to a common stack consisting of three separate flues. The stack parameters for the Unit 3 flue are: height, 275 feet; diameter, 6.2 feet; exit temperature, 270 degrees F; and, actual stack gas flow rate, 163,600 acfm.

Unit 3 began commercial operation on August 18, 2007.

{Permitting note(s): This emissions unit is regulated under 40 CFR 60, Subpart Eb, Standards of Performance for Large Municipal Waste Combustors adopted and incorporated by reference in Rule 62-204.800(8)(b)7., 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-151D&E]; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT); and, Florida Electrical Power Plant Site Certifications [PA90-30].}

Equipment and Operational Limitations

B.1. Name Plate. The combustor (boiler) shall have a metal name plate affixed in a conspicuous place on the shell showing the manufacturer, model number, type waste, and rated capacity. [Rule 62-4.160(2), F.A.C.; and, Permit No. PSD-FL-151D/0710119-005-AC.]

B.2. Stack Height. The height of the boiler exhaust stack shall not be less than 276 feet above grade (271 feet for structural stack plus 5 feet for flue). [Rule 62-4.160(2), F.A.C.; and, Permit No. PSD-FL-151D/0710119-005-AC.]

B.3. Changes/Modifications. The owner or operator shall submit to the Department's Office of Permitting and Compliance, for review any changes in, or modifications to: the method of operation; process or pollution control equipment; increase in hours of operation; equipment capacities; or any change which would result in an increase in potential/actual short term or long term emissions. Depending on the size and scope of the modification, it may be necessary to submit an application for, and obtain, an air construction permit prior to making the desired change. [Permit No. PSD-FL-151D/0710119-005-AC, Condition C.1.]

Essential Potential to Emit (PTE) Parameters

B.4. Hours of Operation. This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.; and, Permit No. PSD-FL-151D/0710119-005-AC, Condition D.1.]

B.5. Capacity. The following maximum values (capacities) based on a heating value of 5,000 Btu/lb of MSW shall not be exceeded:
a. 660 tons/day (TPD) MWC unit throughput of MSW;
b. 291.5 MMBtu/hr MWC unit heat input; and,
c. 197,400 lbs/hr MWC unit steam production on a 4-hour block arithmetic average.
See 40 CFR 60.58b(j) of Appendix 40 CFR 60, Subpart Eb for additional restrictions on capacity. [Rule 62-4.160(2) & 62-210.200 (PTE), F.A.C.; 40 CFR 60.58b(j); and, Permit No. PSD-FL-151D/0710119-005-AC, Condition B.2.]

B.6. 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.7. MWCs - Methods of Operation - Fuels.
a. *Allowable Fuels.*
(1) The only fuels allowed to be burned in the MWCs are municipal solid waste (MSW), with natural gas/propane as an auxiliary fuel. Other fuels or wastes, not specifically listed herein, shall not be burned without written prior approval from the Department. Lee County shall minimize emissions of mercury through a battery collection program.[1] Fuels or wastes specifically authorized herein do not require prior Department approval before combustion.
(2) 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), Florida Statutes (2010).
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) explosives;
(i) 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) nickel-cadmium batteries pursuant to Section 403.7192(3), F.S.;
(d) mercury containing devices and lamps pursuant to Sections 403.7186(2) & (3) , F.S.

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 either:
   (1) well mixed with MSW on the tipping floor; or
   (2) alternately charged with MSW in the hopper.
   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 5%, by weight, of the facility's total fuel.[3] 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.[1] Compliance with this limitation shall be determined on a calendar month basis.
   (1) Unsorted mixtures of construction and demolition debris, or that fraction of sorted construction and demolition debris that is predominantly non-combustible. Non-combustible construction and demolition debris shall include concrete, metals, gypsum products, plaster, rock, brick, and masonry.[2]
   (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 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 and 62-213.440, F.A.C.; and, [1] PSD-FL-151D, Condition B.6.6.; [2] PSD-FL-151D, Condition B.6.7(a); and, [3] PSD-FL-151D, Condition B.24.]

B.8. Auxiliary Burners - Methods of Operation - Fuels. Auxiliary burners for each MWC shall be fired only with natural gas or propane. Natural gas or propane may be used as a supplemental fuel during warm-up, startups, shutdowns, and at other times when necessary and consistent with good combustion practices. These devices shall be used at startup during the introduction of MSW fuel until design furnace gas temperature is achieved. [Rules 62-4.160(2), 62-210.200 (PTE), 62-213.410, and 62-213.440, F.A.C.; and, Permit No. 0710119-005-AC/PSD-FL-151D, Condition B.9.]

Air Pollution Control Technologies and Measures

B.9. 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.]

B.10. Air Pollutant Emission Control Equipment.

a. *Particulate Matter*. The unit shall maintain a particulate matter control baghouse designed, constructed and operated so as not to exceed a maximum emission rate of 20.6 mg/dscm corrected to 7 percent O_2. The baghouse shall be equipped with pressure drop monitoring equipment.
b. *Spray Dryer Scrubber*. The unit shall maintain a spray dryer scrubber designed, constructed and operated so as to remove SO_2 at an efficiency of 80 percent, or not to exceed a maximum emission rate of 26 ppmvd corrected to 7 percent O_2 based upon a 24-hour block geometric mean, whichever is less stringent.
c. *Carbon Injection.* The unit shall maintain a carbon injection system. The carbon injection rate must be measured continuously and maintained in compliance with the requirements set forth in this permit as well as 40 CFR 60.58b(m).
d. *Selective Non Catalytic Reduction System.* The unit shall maintain a selective non catalytic reduction system designed, constructed and operated so as not to exceed a maximum NOx emission rate of 150 ppmvd corrected to 7 percent O_2 on a 24-hour block arithmetic mean (midnight to midnight) as well as 110 ppmvd corrected to 7 percent O_2 on a 12-month rolling average and designed to meet 15 ppmvd @ 7% O_2 ammonia slip on a 24 hour average. Note: this permit does not anticipate nor authorize ammonia plumes.

[Permit No. 0710119-005-AC/PSD-FL-151D and Rule 62-4.070(1)&(3), F.A.C.]

Emission Limitations and Standards

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

Unless otherwise specified, the averaging times for Specific Conditions **B.11. - B.23.** are based on the specified averaging time of the applicable test method.

{Permitting note: The current emission standards and limitations from the PSD-FL-151D permit (BACT) for *PM and Hg remain more stringent than the 40 CFR 60 Subpart Eb (including the May 10, 2006 federal amendments). The May 10, 2006 amendments did not change the emission standards and limitations for Unit 3.}*

Stack Emissions

B.11. Particulate Matter.

a. The emission limit for particulate matter (PM)/PM_{10} contained in the gases discharged to the atmosphere is 20.6 milligrams per dry standard cubic meter (mg/dscm), corrected to 7 percent oxygen. [Rule 62-204.800(8)(b)7., F.A.C.; 40 CFR 60.52b(a)(1)(i); and, Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8.]

b. PM/PM_{10} emissions shall not exceed 5.12 lbs/hour. [Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8.]

B.12. 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(8)(b)7., F.A.C.; 40 CFR 60.52b(a)(2); and, Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8.]

B.13. Cadmium.

a. The emission limit for cadmium (Cd) contained in the gases discharged to the atmosphere is 20 micrograms per dry standard cubic meter (µg/dscm), corrected to 7 percent oxygen. [Rule 62-204.800(8)(b)7., F.A.C.; 40 CFR 60.52b(a)(3)(i); and, Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8.]

b. Cd emissions shall not exceed 5×10^{-3} lbs/hour. [Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8.]

B.14. Mercury.

a. The emission limit for mercury (Hg) contained in the gases discharged to the atmosphere is 28 micrograms per dry standard cubic meter (µg/dscm) 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(8)(b)7., F.A.C.; 40 CFR 60.52b(a)(5)(i); and, Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8.]

b. Hg emissions shall not exceed 0.0168 lbs/hour. [Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8.]

B.15. Lead.

a. The emission limit for lead (Pb) contained in the gases discharged to the atmosphere is 200 micrograms per dry standard cubic meter (µg/dscm), corrected to 7 percent oxygen. [Rule 62-204.800(8)(b)7., F.A.C.; 40 CFR 60.52b(a)(4)(i); and, Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8..]

b. Pb emissions shall not exceed 0.05 lbs/hour. [Permit No. PSD-FL-151D/0710119-005-AC, Condition B.8.]

B.16. Sulfur Dioxide.

a. As determined by the continuous emissions monitoring system (CEMS), the emission limit for sulfur dioxide (SO_2) contained in the gases discharged to the atmosphere is 26 parts per million by volume (ppmv) or 20 percent of the potential sulfur dioxide emission concentration (80-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(8)(b)7., F.A.C.; 40 CFR 60.52b(b)(1); and, Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8.]

b. SO_2 emissions shall not exceed 56.9 lbs/hour. [Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8.]

B.17. Sulfuric Acid Mist. Sulfuric acid mist (SAM) emissions shall not exceed 15 parts per million by volume, corrected to 7 percent oxygen, dry basis; and, 15.1 lbs/hour. [Permit No. 0710119-008-AC/PSD-FL-151E, Condition B.8.]

B.18. Hydrogen Chloride.

a. The emission limit for hydrogen chloride (HCl) contained in the gases discharged to the atmosphere is 25 parts per million by volume (ppmv) 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(8)(b)7., F.A.C.; 40 CFR 60.52b(b)(2); Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8.]

b. HCl emissions shall not exceed 46.76 lbs/hour. [Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8.]

B.19. Dioxin/Furan.

a. 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 13 nanograms per dry standard cubic meter (ng/dscm) (total mass), corrected to 7 percent oxygen. [Rule 62-204.800(8)(b)7., F.A.C.; 40 CFR 60.52b(c)(1); and, Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8..]

b. D/F emissions shall not exceed 3.2×10^{-6} lbs/hour. [Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8.]

B.20. Nitrogen Oxides.

a. As determined by the CEMS, the emission limit for nitrogen oxides (NOx) contained in the gases discharged to the atmosphere are: 150 parts per million by volume (ppmv), corrected to 7 percent oxygen, dry basis, 24-hour average; and, 110 ppmv, corrected to 7 percent oxygen, dry basis, 12-month rolling average. Compliance with the 24-hour average emission limit is based on the 24-hour daily arithmetic average of the hourly emission concentrations using continuous emission monitoring system outlet data. [Rule 62-204.800(8)(b)7., F.A.C.; 40 CFR 60.52b(d); and, Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8.]

b. NOx emissions shall not exceed 70.8 lbs/hour. [Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8.]

B.21. Carbon Monoxide.

a. As determined by the CEMS, the emission limit for carbon monoxide (CO) contained in the gases discharged to the atmosphere from a mass burn waterwall type municipal waste combustor technology are: 100 parts per million by volume (ppmv), measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent oxygen, dry basis, and calculated on a 4-hour block average; and, 80 ppmv, corrected to 7 percent oxygen, dry basis, 12-month rolling average. [Rule 62-204.800(8)(b)7., F.A.C.; and, 40 CFR 60.53b(a); and, Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8.]

b. CO emissions shall not exceed 28.73 lbs/hour (based on the 100 ppmvd limit). [Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8.]

B.22. Ammonia Slip. Ammonia slip from the exhaust gas shall not exceed 30 parts per million by volume, corrected to 7 percent oxygen, dry basis. [Permit No. PSD-FL-151E/0710119-008-AC, Condition B.8.]

Fugitive Ash Emissions

B.23. 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(8)(b)7., F.A.C.; 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.

B.24. 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 this emissions unit. A malfunction means any unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, any other preventable upset condition, or preventable equipment breakdown shall not be considered malfunctions.[1] Normal operating practices for controlling CO emissions involves the use of auxiliary fuel burners. However, use of these burners when operators cannot control boiler water or combustion air could result in the possibility of an explosion or severe damage to the MWC.[1] [Rule 62-210.700(1)&(5), F.A.C.; [1] PSD-FL-151D, Condition B.7.(b); and, authorized by the Department on October 13, 2003.]

B.25. NSPS Startup, Shutdown and Malfunction Provisions.

a. 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.*, boiler waterwall tube failure) or a loss of combustion air 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. During such periods of 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). [40 CFR 60.38b & 40 CFR 60.58b(a)(1)(iii)]

b. During a loss of boiler water level control or loss of combustion air control malfunction period as specified in paragraph (a)(1)(iii) of 40 CFR 60.58b, a diluent cap of 14 percent for oxygen or 5 percent for carbon dioxide may be used in the emissions calculations for sulfur dioxide and nitrogen oxides. [40 CFR 60.38b & 40 CFR 60.58b(b)(8)]

{Permitting note: See Appendices Cb and Eb.}

B.26. Best Operational Practices. Pursuant to Permit No. PSD-FL-151D/0710119-005-AC, the permittee submitted to the DEP SD office an operational procedures manual that identifies and describes best operational practices that shall be followed during startup, shutdown, and malfunctions. [Permit No. PSD-FL-151D/0710119-005-AC, Condition D.3., and Rules 62-210.700(1)&(5) and 62-213.440, F.A.C.]

B.27. 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.]

Continuous Monitoring Requirements

{Permitting Note: The following continuous monitors are installed on these emissions units: steam flow, inlet temperature to baghouse, opacity, SO_2, NOx, CO, O_2, CO_2 and ammonia slip.}

B.28. 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 60.53b & 40 CFR 60.58b(i)(6).]

B.29. Inlet Temperature to Particulate Matter Control Device (Baghouse). 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 60.53b & 40 CFR 60.58b(i)(7).]

B.30. 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 (SO_2), nitrogen oxides (NOx) and carbon monoxide (CO). [Rule 62-213.440, F.A.C.; 40 CFR 60.58b(c)(8) (opacity); 40 CFR 60.58b(e)(5) (SO_2); 40 CFR 60.58b(h)(4) (NOx) & 40 CFR 60.58b(i)(3) (CO).]

B.31. Oxygen (O_2) or Carbon Dioxide (CO_2) 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.; 40 CFR 60.58b(b).]

Monitoring Requirements

B.32. Charging Rate Monitoring. The average daily solid waste charging rate shall be determined on a monthly basis and recorded for the MWC unit. The daily charging rate shall be determined each month on an average daily basis for the MWC unit using the facility's truck scale weight data, refuse pit inventory data and MWC operating data for the preceding calendar month. Monthly truck scale weight records of the weight of solid waste received and processed at the unit, and refuse pit inventory data, shall be used to determine the amount of solid waste charged during the preceding calendar month on an average daily basis. The MWC load level measurements or other operating data shall be used to determine the number of operating hours for each day during the preceding calendar month. [Permit No. PSD-FL-151D/0710119-005-AC, Condition B.15.; and, Rule 62-4.070(1)&(3), F.A.C.]

Test Methods and Procedures

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

B.33. 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	Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content. Methods shall be performed as necessary to support other methods.
EPA Methods 5, 17, 201[1] or 201A	Methods for Determining PM/PM_{10} Emissions. The minimum sample volume shall be 1.7 cubic meters.
EPA Methods 6, 6A or 6C	Determination of SO_2 Emissions (6C is Instrumental).
EPA Methods 7, 7C, 7E or 19	Determination of NOx Emissions (7E is Instrumental).
EPA Method 8	Determination of SAM Emissions.
EPA Method 9	Visual Determination of the Opacity of Emissions (VE).
EPA Method 10	Measurement of CO Emissions (Instrumental). The method shall be based on a continuous sampling train.
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.[2]
EPA Method 26 or 26A	Determination of HCl Emissions from Stationary Sources. On January 8, 2010, the Department approved changes in the EPA Method 26 testing methodology.[3]
EPA Method CTM-027	Procedure for Collection and Analysis of Ammonia.

Method(s)	Description of Method(s) and Comment(s)
(Conditional Test Method) [1]	*{Note: This is an EPA conditional test method. The minimum detection limit shall be 1 ppm.}*
EPA Method 29	Determination of Metal (e.g., Cd, Hg and Pb) Emissions from Stationary Sources.

[1] Method CTM-027 is published on EPA's Technology Transfer Network web site at http://www.epa.gov/ttn/emc/ctm.html. 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. SAM Testing: Demonstration of compliance with the SO_2 emission limit shall be used as a surrogate for determining compliance with the SAM emission limit. If the Department has reason to believe that the SAM limit is not being met, it may require a special compliance test to be performed in accordance with Rule 62-297.310(7)(b), F.A.C. [1] [Chapter 62-297, F.A.C.; Rule 62-204.800(9)(b)7., F.A.C.; [1] PSD-FL-151E; [2] Appendix ATP, U.S. EPA Alternative Test Procedure Approval dated June 3, 2004; and, [3] Appendix ASP, DEP Approval dated January 8, 2010.]

B.34. 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.35. 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). The owner or operator shall conduct a performance test for HCl emissions on an annual basis (no more than 12 calendar months following the previous performance test). [Rules 62-297.310(7) & 62-204.800(8)(b)7., F.A.C.]

B.36. Compliance Testing Conditions. The Method 9 test shall be conducted during one run of the particulate matter emissions test. The particulate matter emissions test shall be conducted under conditions representative of normal operations and at least one test run shall be conducted during a normal (soot blowing) cycle. Simultaneous CEMS data for NO_X shall be submitted with the annual ammonia stack test data and results (Method CTM-027 or equivalent for ammonia). [Rules 62-4.070(1)&(3) and 62-297.310, F.A.C.; and, Permit No. PSD-FL-151G/0710119-010-AC]

B.37. PM_{10} Testing. Since the limit for MWC Metals (as PM) is identical to the limit for PM_{10}, one annual test may suffice in determining compliance with both limits. [Permit No. PSD-FL-151D/0710119-005-AC, Condition B.10.(1).]

B.38. Hg Testing. The mercury emission rate shall be limited to no more than 0.028 mg/dscm at 7% O_2 or an 85% reduction (whichever is less stringent) based upon three valid test runs (annually) pursuant to Rule 62-297.310(1), F.A.C. However, the applicant may eliminate one test run per year in the event that the single run yields an inlet Hg concentration above 0.450 mg/dscm at 7% O_2, and the carbon injection system can be shown to have been operating properly. In the alternative, the applicant may retest within 30 days after receiving test results showing that the inlet Hg concentration was above 0.450 mg/dscm at 7% O_2 in two or more test runs, provided the applicant demonstrates that the carbon injection system was working properly during the test runs. [Permit No. PSD-FL-151D/0710119-005-AC, Condition B.10.(4).]

{Permitting note: The federal Hg limit is 0.080 mg/dscm at 7% O_2 or an 85% reduction (whichever is less stringent).}

B.39. Ammonia Slip Testing. The ammonia slip rate shall be established at 30 ppmvd @ 7% O_2 based upon annually stack test results. [Permit No. 0710119-010-AC/PSD-FL-151G]

Recordkeeping and Reporting Requirements

B.40. Reporting Schedule. The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
Excess Emissions from Malfunctions, if requested by the Compliance Authority	Every 3 months (quarter)	**B.41.**
NSPS Excess Emissions and Monitoring System Performance	Every 6 months (semi-annual), except when more frequent reporting is specifically required	**B.48.**

[Rule 62-210.700(6), F.A.C.; and, 40 CFR 60, Subpart A.]

B.41. 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.]

B.42. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

B.43. Records of Non-MSW. The facility 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 **B.7.e.** and **B.7.f.**). The following records shall be prepared and maintained to demonstrate compliance with the segregated non-MSW percentage limitations:

a. *Segregated Loads of non-MSW Materials*. Each segregated load of non-MSW materials, that is subject to the percentage weight limitations (see Specific Conditions **B.7.e.** and **B.7.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.

b. *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 by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% limitation.[1]

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 and 62-213.440, F.A.C.; and, [1] PSD-FL-151D, Condition B.24.]

B.44. Records. Records shall be maintained at the facility and shall include but not be limited to the items listed below. These records shall be made available upon request to the DEP SD Office for inspection at the facility.

a. Data collected from all monitoring instruments, including continuous monitoring systems, steam flow measurements and PM control device temperatures;
b. Continuous steam flow records on a 4-hour block average basis:
c. Records of daily solid waste charging rates and hours of operation derived from monthly truck scale data, refuse pit inventory, and operational records;
d. Amounts of activated carbon used for emissions control;

e. Calibration logs for all instruments subject to this permit; and,
f. Maintenance/repair logs for any work performed which is subject to this permit.
[Permit No. PSD-FL-151D/0710119-005-AC, Condition B.19.; and Rules 62-4.070(1)&(3) and 62-4.160, F.A.C.]

Operator Practices, Training and Certification

B.45. Operating Practices. The owner or operator shall comply with the operating practices as set forth in 40 CFR 60.53b(b) and (c) of 40 CFR 60, Subpart Eb. [Rule 62-204.800(8)(b)7., F.A.C.; and, 40 CFR 60.53b.]

B.46. Operating Practices. All operators (including supervisors) of air pollution control devices shall be properly trained and certified in plant specific equipment. A list of all such certified personnel shall be submitted to the Department's (DEP) South District (SD) Office. Department's staff shall be given notice of any formal training sessions related to operation and maintenance of air pollution control devices. [Permit No. PSD-FL-151D/0710119-005-AC, Condition C.3.]

NSPS 40 CFR 60 Requirements

B.47. 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.48. 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

B.49. 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)(h), F.A.C.]

B.50. Waste Disposal. The owner or operator shall treat, store, and dispose of all liquid, solid, and hazardous wastes in accordance with all applicable federal, state, and local regulations. This air pollution permit does not relieve the permittee from securing any other types of required permits, licenses, or certifications. [Permit No. PSD-FL-151D/0710119-005-AC, Condition E.1.]

Subsection C. Emissions Unit 004

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

E.U. ID No.	Brief Description
	Material Handling
004	Ash Handling System

Emissions Unit ID No. 004 is the Ash Handling System. The Ash Handling System is comprised of conveyors, scalpers and a ferrous and non-ferrous removal system. The ash handling building is equipped with a baghouse which vents internally to the building. The ash handling system began initial operation on August 20, 1994.

{Permitting note(s): This emissions unit is regulated under Rule 62-210.300, F.A.C., Permits Required; and, Prevention of Significant Deterioration (PSD) [PSD-FL-151, as amended]. The ash conveying systems of E.U. ID No. 004 are regulated under 40 CFR 60, Subpart Cb, Emissions Guidelines (EG) and Compliance Times for Large Municipal Waste Combustors.}

Essential Potential to Emit (PTE) Parameters

C.1. Hours of Operation. This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - Potential to Emit (PTE), F.A.C.; and, PSD-FL-151, as amended.]

C.2. 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.]

Emission Limitations and Standards

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

Unless otherwise specified, the averaging times for Specific Conditions **C.5.** are based on the specified averaging time of the applicable test method.

C.3. Ash Handling Activities. The potential for dust generation by ash handling activities shall be mitigated by quenching the ash prior to loading in ash transport trucks. The ash handling facilities shall be enclosed. Residue from the grates, grate siftings, and ash from the combustor/boiler and fabric filter hoppers during normal operations shall be discharged into the ash quenching system, or otherwise handled in a manner to minimize visible dust. The ash/residue in the ash handling building shall remain sufficiently moist to prevent dust during storage and handling operations. [Permit No. 0710119-005-AC/PSD-FL-151D, Condition C.1(d); Rule 62-4.070(3), F.A.C.; and, 40 CFR 60.36b & 40 CFR 60.55b.]

C.5. **(This condition only applies to the ash conveying systems of E.U. ID No. 004.)** 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.
[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.

C.6. 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.]

C.7. 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 of Operations

C.8. Pressure Drop Monitoring Equipment. The baghouse for E.U. ID No. 004, Ash Handling System, shall be equipped with pressure drop monitoring equipment. [PSD-FL-151A.]

Test Methods and Procedures

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

C.9. Test Methods. Required tests shall be performed in accordance with the following reference method(s):

Method(s)	Description of Method(s) and Comment(s)
EPA Method 22	Visual Determination of Fugitive Emissions from Material Sources

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.]

C.10. Annual Compliance Test. During each federal fiscal year (October 1st to September 30th), the ash handling system shall be tested to demonstrate compliance with the visible emissions (VE) limitation. [Rule 62-297.310(7), F.A.C.; and, PSD-FL-151 and PSD-FL-151B.]

C.11. Compliance Test Prior To Renewal. Prior to permit renewal, the ash handling system shall be tested to demonstrate compliance with the VE limitation. [Rule 62-297.310(7)(a)3., F.A.C.]

C.13. 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.]

Recordkeeping and Reporting Requirements

C.14. Reporting Schedule. The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
Excess Emissions from Malfunctions, if requested by the Compliance Authority	Every 3 months (quarter)	**C.15.**

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

C.15. 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.]

C.16. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

*{Permitting note: Specific conditions **C.17. - C.20.** only apply to the ash conveying systems of E.U. ID No. 004.}*

EG 40 CFR 60 Requirements

C.17. 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.}

C.18. 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 Requirements

{Permitting note(s): 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.}

C.19. 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.]

C.20. 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.]

Subsection D. Emissions Unit 008, 009, 010, & 011

Engines in this subsection are grouped by similar engine type as regulated by EPA. The table heading has a very brief explanation of the engine type as described in the EPA regulations/tables.

This subsection of the permit is comprised of 4 compression ignition (CI) type engines, all 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 other non-road engines (portable) located at the facility; these engines are not regulated under 40 CFR 63, Subpart ZZZZ.}

This subsection includes unit-specific applicable requirements which were customized from the entire 40 CFR 63, Subpart ZZZZ.

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

	"Existing" stationary CI RICE less than or equal to 500 HP
E.U. ID No.	**Brief Description**
008	Diesel Emergency Generator - 330 HP
009	Fire Pump No. 1 (Diesel Emergency Generator) - 305 HP
010	Fire Pump No. 2 (Diesel Emergency Generator) - 300 HP
011	Fire Pump No. 3 (Diesel Emergency Generator) - 64 HP (WTE Transfer Station)

{Permitting note: This 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 #
008	330	-	1994	Diesel	Emergency	N/A	Detroit Diesel® 10637305 N/A
009	305	-	1993	Diesel	Emergency	N/A	Detroit Diesel® DDFPL6VT7362F N/A
010	300	-	2006	Diesel	Emergency	N/A	John Deere® 80 6081HF001 N/A
011	64	-	2004	Diesel	Emergency	N/A	John Deere® 80 JU4HUF30 N/A

Compliance Deadline

D.1. Compliance Deadline. The permittee shall comply with the following emissions and operating limitations no later than **May 3, 2013**. [40 CFR 63.6595(a)(1)]

Essential Potential to Emit (PTE) Parameters

D.2. Hours of Operation.

a. *Emergency Situations*. There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(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 63.6640(f)(1)]
c. *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)]
d. *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)]
e. *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.}

D.3. Work or Management Practice Standards.

a. *Oil*. Change oil and filter every 500 hours of operation or annually, whichever comes first. [40 CFR 63 Table 2c(1)(a)]
b. *Air Cleaner*. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first. [40 CFR 63 Table 2c(1)(b)]
c. *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)]
d. *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)]

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

D.4. 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

D.5. 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)]

D.6. 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

D.7. Notification, Performance and Compliance Records.

a. 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.
b. 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.
c. 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]

D.8. Malfunction Records.

a. Records of the occurrence and duration of each malfunction of operation (i.e. process equipment) or the air pollution control and monitoring equipment.
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]

D.9. 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]

D.10. 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

D.11. 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 FOLLOWING SPECIFIC CONDITIONS APPLY TO ALL 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

D.12. 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

D.13. 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

D.14. 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.]

D.15. 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.]

SECTION IV. APPENDICES.

The Following Appendices are Enforceable Parts of This Permit:

Appendix A, Glossary.
Appendix ASP, DEP Order dated April 28, 2010.
Appendix ATP, U.S. EPA Alternative Test Procedure Approval dated June 3, 2004.
Appendix BW, Biomedical Waste Definitions.
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.

Appendix 40 CFR 60 Subpart A, NSPS General Provisions (version dated 2/5/2010).
Appendix 40 CFR 60 Subpart Cb, Emissions Guidelines (EG) and Compliance Times for Large Municipal Waste Combustors (version dated 03/24/2010).
Appendix 40 CFR 60 Subpart Eb, NSPS for Large Municipal Waste Combustors (version dated 04/21/2008).
Appendix 40 CFR 63 Subpart A, General Provisions (version dated 01/29/2008).
Appendix 40 CFR 63 Subpart ZZZZ "Generally Applicable Requirements," National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (version dated 06/30/2010).