# Wheelabrator South Broward, Inc.

# **South Broward Waste-to-Energy Facility**

Facility ID No. 0112119
Broward County

## Title V Air Operation Permit Renewal

**Permit No. 0112119-015-AV**
(Renewal of Title V Air Operation Permit No. 0112119-014-AV)

**<u>Permitting Authority:</u>**

State of Florida
Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
Title V Section

2600 Blair Stone Road
Mail Station #5505
Tallahassee, Florida 32399-2400

Telephone: (850) 717-9000
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**<u>Compliance Authority</u>:**

Southeast District Office
400 North Congress Avenue, Suite 200
West Palm Beach, Florida 33401
Telephone: (561) 681-6600
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# Title V Air Operation Permit Renewal

Permit No. 0112119-015-AV

## Table of Contents

**Section** **Page Number**

Placard Page ..... 1

I. Facility Information.
A. Facility Description. ..... 2
B. Summary of Emissions Units. ..... 2
C. Applicable Regulations. ..... 2

II. Facility-wide Conditions. ..... 4

III. Emissions Units and Conditions.
A. Three Municipal Waste Combustors and Auxiliary Burners. ..... 6
B. Material Handling Systems and Treatment Operations. ..... 19

IV. Appendices. ..... 22
Appendix A, Glossary.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix NESHAP, Subpart A – General Provisions.
Appendix NESHAP, Subpart ZZZZ – Stationary Reciprocating Internal Combustion Engines.
Appendix NSPS, Subpart A – General Provisions.
Appendix NSPS, Subpart Cb – Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors.
Appendix NSPS, Subpart Eb – Standards of Performance for Large Municipal Waste Combustors.
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.

Referenced Attachments. ..... At End
Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996).
Table H, Permit History.
Table 1, Summary of Air Pollutant Standards and Terms.
Table 2, Compliance Requirements.

**PERMITTEE:**
Wheelabrator South Broward, Inc.
4400 South State Road 7
Fort Lauderdale, Florida 33414

Permit No. 0112119-015-AV
South Broward Waste-to-Energy Facility
Facility ID No. 0112119
Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V air operation permit for the above referenced facility. The existing South Broward Waste-to-Energy Facility is located at 4400 South State Road 7, Fort Lauderdale, in Broward County. Universal Transverse Mercator (UTM) Coordinates are: Zone 17, 579.54 kilometers (km) East and 2883.34 km North. Latitude is: 26° 04' 07" North; and, Longitude is: 80° 12' 19" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 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: February 22, 2011
Renewal Application Due Date: July 11, 2015
Expiration Date: February 21, 2016

_____
Trina L. Vielhauer, Acting Director
Division of Air Resource Management

TLV/jkh/tbc

## Subsection A. Facility Description.

This facility consists of three municipal solid waste combustors (Unit Nos. 001, 002 and 003) with auxiliary burners, lime storage and processing facilities, ash storage and processing facilities, a cooling tower and ancillary support equipment. The nominal (i.e., generator nameplate) electric generating capacity of the facility is 66.1 megawatts (MW), which is sold to the local utility company. Also included in this permit are miscellaneous insignificant emissions units and/or activities.

Each of the combustor units at the facility includes an acid gas, air toxics, and particulate matter emissions control system consisting of a lime spray dryer and baghouse. Nitrogen oxides are controlled by a urea injection system that operates under the principle of selective non-catalytic reduction (SNCR). There is a metals recovery system which is a potential source of fugitive emissions.

## Subsection B. Summary of Emissions Units.

| EU No. | Brief Description |
|---|---|
| *Regulated Emissions Units* | |
| 001 | 863 tons per day (TPD) (maximum) Municipal Waste Combustor and Auxiliary Burners - Unit 001 |
| 002 | 863 TPD (maximum) Municipal Waste Combustor and Auxiliary Burners - Unit 002 |
| 003 | 863 TPD (maximum) Municipal Waste Combustor and Auxiliary Burners - Unit 003 |
| 004 | 236 Ton Lime Silo with a Baghouse |
| 005 | Ash Handling System |

## Subsection C. Applicable Regulations.

Based on the Title V air operation permit renewal application received on June 22, 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. However, since the engines being operated meet the Subpart ZZZZ definition of "existing units", there are no unit specific applicable requirements that must be met pursuant to this rule at this time. The existing facility is a PSD major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table.

| Regulation | EU No(s). |
|---|---|
| *Federal Rule Citations* | |
| 40 CFR 60, Subpart A, NSPS General Provisions | 001, 002, 003 |
| 40 CFR 60, Subpart Cb, Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors | |
| 40 CFR 60, Eb, Standards of Performance for Large Municipal Waste Combustors | |
| 40 CFR 61, Subpart A, NESHAP General Provisions | |

| *State Rule Citations* | |
|---|---|
| Rule 62-4, Florida Administrative Code (F.A.C.) (Permitting Requirements) | 001, 002, 003, 004, 005 |
| Rule 62-204, F.A.C. (Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference) | |
| Rule 62-210, F.A.C. (Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms) | |
| Rule 62-213, F.A.C. (Title V Air Operation Permits for Major Sources of Air Pollution) | |
| Rule 62-296, F.A.C. (Emission Limiting Standards) | |
| Rule 62-297, F.A.C. (Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures) | |
| PSD-FL-105 | |
| PA 85-21(B) | |

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

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

**Emissions and Controls**

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

**FW3.** 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.}*

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

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

a. Vehicular traffic areas such as roads and parking areas are paved, swept and watered.
b. Water is applied to active areas of the monofill. Closed areas are watered until sufficient vegetation has been established.
c. Water is applied to areas that are unvegitated because of construction/operation activities.
d. All conveyor systems are enclosed and maintained to minimize leaks.
e. The facility utilizes a Dust Abatement Control Plan to minimize emissions of unconfined particulate matter from the monofill.
f. Landscaping or planting of vegetation.
g. Confining abrasive blasting where possible.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by Applicant in Title V air operation permit renewal application received June 22, 2010.]

**Annual Reports and Fees**

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

**FW6.** 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.]

**FW7.** 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.]

**FW8.** 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. and 3. and (b), F.A.C.]

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

a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.

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

[40 CFR 68]

## Subsection A. Emissions Units 001, 002 and 003

**The specific conditions in this section apply to the following emissions units:**

| EU No. | Brief Description |
|---|---|
| 001 | 863 tons per day (TPD) (maximum) Municipal Waste Combustor and Auxiliary Burners - Unit 001 |
| 002 | 863 TPD (maximum) Municipal Waste Combustor and Auxiliary Burners - Unit 002 |
| 003 | 863 TPD (maximum) Municipal Waste Combustor and Auxiliary Burners - Unit 003 |

Each of the three municipal waste combustors (MWC) has a *nominal* design rate capacity of 750 tons of municipal solid waste (MSW) per day and 281 million British thermal units (MMBtu) per hour heat input (with MSW having a heating value of 4,500 Btu per pound). A maximum (short-term) capacity of 863 tons of waste per day and 323.6 MMBtu per hour heat input (115% rated capacity) is allowed. Short-term capacity is limited by limiting steam production, which effectively limits heat input. The maximum steam production rate is 192,000 pounds per hour (lbs/hr), with a net steam energy of 5,600 Btu/lb of steam (the net steam energy may be calculated as the difference in enthalpy between the steam at the superheater outlet and the feedwater at the inlet).

Emissions unit numbers 001, 002 and 003 are Babcock and Wilcox Company manufactured MSW combustors. Each unit consists of an integrated mass-burn furnace and multi-pass waterwall type boiler with a rated (nominal) capacity of 750 tons MSW per day (TPD) and 281 million British thermal units per hour (MMBtu/hr) heat input when burning solid waste with a heat content of 4,500 British thermal units per pound (Btu/lb). Therefore, the facility has a nameplate (nominal) waste processing rate of 2,250 TPD (at 4,500 Btu/lb). Two auxiliary distillate fuel oil or natural gas fired burners are associated with each MSW combustor. The burners are used to fire the MSW combustors during start-up, shutdown, and at other times when necessary and consistent with good combustion practices. The maximum permitted steam production rate of each unit is 192,000 lbs/hr when firing municipal solid waste. Steam flow is the main process throughput parameter monitored for these units.

Units 001, 002 and 003 began commercial operation on April 5, April 20 and April 26, 1991, respectively. Particulate matter, some metals (i.e., lead (Pb), mercury (Hg) and beryllium (Be)), sulfur dioxide ($SO_2$) and acid gas emissions from Units 001, 002 and 003 are controlled by separate baghouses and spray dry absorbers, while carbon monoxide (CO) and nitrogen oxides ($NO_X$) emissions are controlled by good combustion controls. Mercury emissions are reduced by injection of activated carbon. Odor is controlled by drawing combustion air from the refuse tipping area. Units 001, 002 and 003 share a common stack and turbine containing one flue for each unit. Stack height = 195 feet, exit diameter = 7.5 feet, volumetric flow rate = 169,000 actual cubic feet per minute (acfm).

All three units are retrofitted with selective non-catalytic reduction (SNCR) $NO_X$ controls to comply with NSPS – 40 CFR 60, Subpart Cb requirements. The limits imposed in Subpart Cb are more stringent than corresponding PSD-FL-105 limits for $SO_2$, PM, VE, $NO_X$ and Pb emissions from each unit. Pollutants regulated by Subpart Cb that were not regulated in PSD-FL-105 for all three units are Cd, HCl, Hg, and dioxins/furans. Pollutants regulated in PSD-FL-105 that are not regulated by Subpart Cb are Be and Fl.

*{Permitting Notes. These emissions units are regulated under NSPS - 40 CFR 60, Subpart Cb, Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994, adopted and incorporated by reference, subject to provisions, in Rule 62-204.800, F.A.C.; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD) (PSD-FL-105(B)); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT); Rule 62-296.401(2), F.A.C., Incinerators; Rule 62-296.416, F.A.C., Waste-to-Energy Facilities; and Power Plant Siting Certification No.: PA 85-21(B). Also, please note that conditions in 40 CFR 60, Subpart Cb, are contained in 40 CFR 60, Subpart Eb.}*

**Essential Potential to Emit (PTE) Parameters**

**A.1.** Permitted Capacity. The maximum allowable pounds of steam produced per hour is as follows:

a. *Steam Capacity.*

| Unit Nos. | Pounds of Steam Produced per Hour | Fuel Type |
|---|---|---|
| 001<br>002<br>003 | 192,000 (based on a 4-hour block averaged measurement) | Municipal Solid Waste (MSW) |

b. *Operational Capacity.* Each municipal waste combustor (MWC) unit shall have a maximum capacity of 192,000 pounds of steam produced per hour based on a 4-hour block averaged measurement. The maximum individual MWC throughput shall not exceed 863 tons MSW per day (2,589 tons per day entire facility) and 323.6 MMBtu/hr (115% rated capacity), as determined monthly. The procedures specified in paragraphs (1) and (2), below, shall be used for calculating municipal waste combustor unit capacity as defined under 40 CFR 60.51b.

(1) For municipal waste combustor units capable of combusting municipal solid waste continuously for a 24-hour period, municipal waste combustor unit capacity shall be calculated based on 24 hours of operation at the maximum charging rate. The maximum charging rate shall be determined as specified in paragraphs (a) and (b) as applicable.

(a) For combustors that are designed based on heat capacity, the maximum charging rate shall be calculated based on the maximum design heat input capacity of the unit and a heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel and a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel.

(b) For combustors that are not designed based on heat capacity, the maximum charging rate shall be the maximum design charging rate.

(2) For batch feed municipal waste combustor units, municipal waste combustor unit capacity shall be calculated as the maximum design amount of municipal solid waste that can be charged per batch multiplied by the maximum number of batches that could be processed in a 24-hour period. The maximum number of batches that could be processed in a 24-hour period is calculated as 24 hours divided by the design number of hours required to process one batch of municipal solid waste, and may include fractional batches (e.g., if one batch requires 16 hours, then 24/16, or 1.5 batches, could be combusted in a 24-hour period). For batch combustors that are designed based on heat capacity, the design heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel and a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel shall be used in calculating the municipal waste combustor unit capacity.

[40 CFR 60.31b and 40 CFR 60.58b(j); Rules 62-4.160(2), 62-204.800 and 62-210.200(PTE), F.A.C.; and PSD-FL-105 and PSD-FL-105(B)]

**A.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.]

**A.3.** Unit Load. Unit load means the steam load (in pounds per hour) of the municipal waste combustor (MWC) measured as specified in 40 CFR 60.58b(i)(6). Each MWC unit shall not operate at a load level greater than 110 percent of the unit's "maximum demonstrated unit load." The maximum demonstrated unit load is the highest 4-hour arithmetic averaged MWC unit load achieved during four consecutive hours during the most recent dioxin/furan performance stack test in which compliance with the dioxin/furan emission limit

was achieved. Higher loads are allowed for testing purposes as specified at 40 CFR 60.53b (b). [40 CFR 60.34b (b) and 40 CFR 60.51b; and, PSD-FL-105(B)]

**A.4.** Methods of Operation -- Fuels.

a. *Allowable Fuels.*
The primary fuel for this facility is municipal solid waste (MSW), including the items and materials that fit within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), F.S. Subject to the limitations contained in this permit, the authorized fuels for the facility also include the other solid wastes that are not MSW which are described below.

b. *Unauthorized Fuels.*
(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) those materials that are not authorized by this permit;
(d) lead acid batteries;
(e) hazardous waste;
(f) nuclear waste;
(g) radioactive waste;
(h) sewage sludge;
(i) explosives;
(j) asbestos containing materials;
(k) beryllium-containing waste, as defined in 40 CFR 61, Subpart C.
(2) and shall not knowingly burn:
(a) nickel-cadmium batteries pursuant to Section 403.7192(3);
(b) mercury containing devices and lamps pursuant to Sections 403.7186(2) and (3);
(c) 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;
(d) segregated loads of biological waste.

c. *Fuel Handling.* The fuel may be received either as a mixture or as a single-item stream (segregated load) of discarded materials. If the facility intends to use an authorized fuel that is segregated non-MSW material, the fuel shall be either:
(1) well mixed with MSW in the refuse pit; or
(2) alternately charged with MSW in the hopper.
The facility owner/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 as described below. 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 inspection.

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, credit cards, magnetic tape 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; and
(6) Rugs, carpets, and floor coverings but not asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings.
(7) The predominantly combustible fraction of sorted construction and demolition debris. Sorting of mixed construction and demolition debris at the facility shall occur on the tipping floor or at another location approved by the Department.

e. *Waste Tires.* Subject to the conditions and limitations contained in this permit, waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 3%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined by using a rolling 30 day average**.**

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 by using a rolling 30 day average**.**

(1) Construction and demolition debris.
(2) Oil spill debris from aquatic, coastal, estuarine or river environments. Such items or materials include but are not limited to rags, wipes, and absorbents.
(3) Items suitable for human, plant or domesticated animal use, consumption or application where the item's shelf-life has expired or the generator wishes to remove the items from the market. Such items or materials include but are not limited to off-specification or expired consumer products, pharmaceuticals, medications, health and personal care products, cosmetics, foodstuffs, nutritional supplements, returned goods, and controlled substances.
(4) Consumer-packaged products intended for human or domesticated animal use or application but not consumption. Such items or materials include but are not limited to carpet cleaners, household or bathroom cleaners, polishes, waxes and detergents.
(5) Waste materials that:
(a) are generated in the manufacture of items in categories d.(3) or (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 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 prior approval of the Department.

g. *Auxiliary Burners Fuels*. Only distillate fuel oil or natural gas shall be used in the startup burners. Natural gas may be used as fuel during warm-up, startup, shutdown, and malfunction periods, and at other times when necessary and consistent with good combustion practices.

h. *Prior Approval to Burn Additional Fuels or Wastes*. Other fuels or wastes shall not be burned in the MSW combustors without prior specific written approval of the Secretary of the Department of Environmental Protection.

[Rules 62-4.160(2), 62-210.200, 62-4.070(3), Rule 62-213.410 and 62-213.440(1), F.A.C.; Applicant's request in Title V permit renewal application received June 22, 2010; and PSD-FL-105(B) and (D)]

**A.5.** Operating Requirements. To ensure that the facility's fuel does not adversely affect the facility's combustion process or emissions, the facility operator shall:
a. comply with good combustion operating practices in accordance with 40 CFR 60.53b;
b. operate and maintain continuous emissions monitors (CEMS) for oxygen, carbon monoxide, sulfur dioxide, oxides of nitrogen and particulate control device inlet temperature in accordance with 40 CFR 60.58b; and
c. record and maintain the CEMS data in accordance with 40 CFR 60.59b.
These steps shall be used to ensure and verify continuous compliance with the emissions limitations in this permit. [PSD-FL-105(B)]

**A.6.** Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C.]

**Control Technology**

**A.7.** Air Pollution Control Equipment. The permittee shall continuously operate and maintain the following air pollution controls to minimize emissions.
a. Each boiler is equipped with a baghouse for the control of particulate matter.
b. Each boiler is equipped with an acid gas control device designed to remove at least 90% of the acid gases.
c. Each boiler is equipped with a selective non-catalytic reduction system to control nitrogen oxides emissions.
d. Each boiler is equipped with an activated carbon injection system to further control mercury and dioxin/furan emissions.
[PSD-FL-105(B), (C) and (D) and Rule 62-4.070.(3), F.A.C.]

**A.8.** Mercury Control Requirements. The permittee 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. [Rule 62-210.650, F.A.C.]

**Emission Limitations and Standards**

*{Permitting Note: The attached Table 1, Summary of Air Pollutant Standards, 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.9.-A.21.** are based on the specified averaging time of the applicable test method.

**A.9.** PM Emissions. The emission limit for particulate matter contained in the gases discharged to the atmosphere shall not exceed any of the following:
a. *NSPS*. 25 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.
b. *PSD*.
(1) 27 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.
(2) 0.012 gr/dscf, corrected to 7 percent oxygen
[40 CFR 60.33b (a)(1)(i) and PSD-FL-105(B)]

**A.10.** Visible Emissions. The emission limit for opacity exhibited by the gases discharged to the atmosphere is 10 percent (6-minute average). [40 CFR 60.33b (a)(1)(iii) and PSD-FL-105(B)]

**A.11.** Cadmium. The emission limit for cadmium contained in the gases discharged to the atmosphere shall not exceed any of the following:
a. *NSPS*. 0.035 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.
b. *PSD*. 0.040 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.
[40 CFR 60.33b(a)(2)(i) and PSD-FL-105(B)]

**A.12.** Mercury. The emission limit for mercury contained in the gases discharged to the atmosphere shall not exceed any of the following:
a. *NSPS*. 50 micrograms per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent.
b. *PSD*. 70 micrograms per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85-percent reduction by weight or volume), corrected to 7 percent oxygen, whichever is less stringent.
[40 CFR 60.33b(a)(3) and PSD-FL-105(B)]

**A.13.** Lead. The emission limit for lead contained in the gases discharged to the atmosphere shall not exceed any of the following:
a. *NSPS*. 0.40 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.
b. *PSD*. 0.44 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.
[40 CFR 60.33b(a)(4) and PSD-FL- PSD-FL-105(B)]

**A.14.** Sulfur Dioxide. The emission limit for sulfur dioxide contained in the gases discharged to the atmosphere is 29 parts per million by volume or 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. Compliance with this emission limit is based on a 24-hour daily geometric mean. [40 CFR 60.33b(b)(3)(i) and PSD-FL-105(B)]

**A.15.** Hydrogen Chloride. The emission limit for hydrogen chloride contained in the gases discharged to the atmosphere is 29 parts per million by volume or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. [40 CFR 60.33b(b)(3)(ii) and PSD-FL-105(B)]

**A.16.** Dioxins/Furans. The emission limit for dioxins/furans contained in the gases discharged to the atmosphere is 30 nanograms per dry standard cubic meter (total mass of tetra- through octa chlorinated dibenzo-p-dioxins and dibenzofurans), corrected to 7 percent oxygen. [40 CFR 60.33b(c)(1)(ii) and PSD-FL-105(B)]

**A.17.** Nitrogen Oxides. The emission limit for nitrogen oxides contained in the gases discharged to the atmosphere is 205 parts per million by volume, corrected to 7 percent oxygen, dry basis. The permittee may request authorization from the Department to conduct nitrogen oxides emissions averaging pursuant to 40 CFR 60.33b. [40 CFR 60.33b(d) and PSD-FL-105(B)]

**A.18.** Carbon Monoxide. The emission limit for carbon monoxide contained in the gases discharged to the atmosphere 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. The limit is calculated as an arithmetic average; averaging time is a 4-hour block average. [40 CFR 60.34b(a) and PSD-FL-105(B)]

**A.19.** 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 (including conveyor transfer points).
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 and PSD-FL-105(B)]

**A.20.** Beryllium. The emission limit for beryllium contained in the gases discharged to the atmosphere from each unit shall not exceed 0.001 mg/dscm, corrected to 7 % $O_2$. [PSD-FL-105(B)]

**A.21.** Total Fluorides. The emission limit for total fluorides contained in the gases discharged to the atmosphere from each unit shall not exceed 0.0040 lbs/MMBtu. Compliance with the emission limit shall be determined by calculating an EPA F-Factor using 40 CFR 60 Appendix A, Method 19. [Rule 62-213.440, F.A.C. and PSD-FL-105(B)]

**Excess Emissions**

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

**A.22.** Excess Emissions Allowed. Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed three hours in any 24 hour period. [Rule 62-210.700(1) and (5), F.A.C., and authorized by the Department on June 21, 2000]

**A.23.** 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 start-up, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C. and PSD-FL-105(B)]

**A.24.** CEMS Data. Excess emissions indicated by the CEM systems shall be considered violations of the applicable opacity limit or operating emission limits (in ppm) for the purposes of this permit provided the data represents accurate emission levels and the CEM systems do not exceed the calibration drift (as specified in the respective performance specification tests) on the day when initial and subsequent compliance is determined. The burden of proof to demonstrate that the data does not reflect accurate emission readings shall be the responsibility of the permittee. [PSD-FL-105]

**A.25.** Carbon Monoxide. For the purpose of compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a), if a loss of boiler water level control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence. [40 CFR 60.58b(a)(1)iii]

**Monitoring of Operations**

**A.26.** Flue Gas Temperature Monitoring. Each MWC unit is required to continuously monitor and record the flue gas temperature at the inlet to the PM control device in accordance with the requirements at 40 CFR 60.58b(i)(7). The PM control device inlet temperature and the steam (or feedwater) flow for each unit during the stack test shall be continuously monitored and recorded in accordance with 40 CFR 60, Subpart Cb. Higher temperatures are allowed for testing purposes, as specified at 40 CFR 60.53b(c). [PSD-FL-105(B)]

**Continuous Monitoring Requirements**

**A.27.** CEMS Data.
a. Continuous emission monitoring systems (CEMS) shall measure stack gas opacity and $SO_2$ , $NO_x$, CO, and $O_2$ concentrations for each unit. Continuous monitors for $SO_2$ shall be calibrated and maintained following the acid gas control device for each unit. The systems shall meet the EPA monitoring

performance specifications of 40 CFR 60.13 and 40 CFR 60, Appendix B. Additionally, CEMS shall meet the quality control requirements of 40 CFR 60, Appendix F.

b. CEMS data recorded during periods of startup, shutdown, and malfunction shall be reported but excluded from compliance averaging periods for CO, $NO_X$, and opacity.

c. CEMS data recorded during periods of startup and shutdown shall be excluded from compliance averaging periods for $SO_2$.

d. CEMS data recorded during periods of acid gas control device malfunctions shall be excluded from compliance averaging periods for $SO_2$ provided that the preceding thirty day period which ends on the last day of the malfunction period meets an average $SO_2$ emission limit equal to the $SO_2$ limit specified in condition . CEMS data must be available for 90% of the operating time for this exemption to apply. A malfunction as used in this permit means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

[PSD-FL-105(B)]

**A.28.** CEMS Used for Continuous Compliance. Continuous compliance with the emission limits for opacity, carbon monoxide (CO), nitrogen oxides ($NO_X$), sulfur dioxide ($SO_2$) and the operational parameters steam production (lb/hr) or feedwater flow rate (lb/hr) and fabric filter inlet flue gas temperature shall be demonstrated by continuous emission monitoring systems (CEMS) operated in accordance with 40 CFR 60.58b and 60.59b(f). $SO_2$ monitors shall be located both upstream of the scrubber and downstream of the baghouse, in order to calculate percent removal efficiency. [PSD-FL-105(B)]

**Test Methods and Procedures**

*{Permitting Note: The attached 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.29.** Test Methods. Required tests shall be performed in accordance with the following reference methods:

| Method | Description of Method and Comments |
|---|---|
| 1, 2 and 4 | Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content |
| 3, 3A or 3B | Gas Analysis for the Determination of Dry Molecular Weight |
| 5 | Method for Determining Particulate Matter Emissions |
| 6, 6A or 6C | Determination of Sulfur Dioxide Emissions from Stationary Sources |
| 7, 7A, 7C, 7D or 7E | Determination of Nitrogen Oxides Emissions from Stationary Sources |
| 9 | Visual Determination of the Opacity of Emissions from Stationary Sources |
| 10, 10A, or 10B | Determination of Carbon Monoxide Emissions from Stationary Sources<br>{Note: The method shall be based on a continuous sampling train.} |
| 13A or 13B | Method for Determining Total Fluoride Emissions |
| 19 | Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.) |
| 22 | Determination of Fugitive Dust Emissions |
| 23 | Method for Determining Dioxins/Furans Emission Concentration |

| Method | Description of Method and Comments |
|---|---|
| 26 or 26A | Method for Determining Hydrogen Chloride Emissions |
| 29 | Method for Determining Beryllium, Cadmium, Lead and Mercury Emissions |

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [40 CFR 60.38b, 40 CFR 60.58b; 62-297.401, F.A.C.; PSD-FL-105; and, 0112119-001-AC]

**A.30.** 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.31.** Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), each EU shall be tested to demonstrate compliance with the emissions standards for $PM/PM_{10}$, HCl, mercury, lead, cadmium, visible emissions and dioxins/furans. [Rule 62-297.310(7), F.A.C., and Permit No. PSD-FL-105]

**A.32.** Compliance Tests Prior To Renewal. Compliance tests shall be performed for beryllium and total fluorides once every 5 years. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Condition **A.20.** and **A.21.** [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]

**A.33.** Cadmium, Lead and Mercury. The procedures and test methods specified in paragraphs a. and b. shall be used to determine compliance with the emission limits for cadmium, lead, and mercury.

a. The procedures and test methods specified in paragraphs a.(1) through a.(10) shall be used to determine compliance with the emission limits for cadmium and lead.
   (1) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.
   (2) The EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC–19–10–1981—Part 10, as applicable shall be used for gas analysis.
   (3) The EPA Reference Method 29 shall be used for determining compliance with the cadmium and lead emission limits.
   (4) An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 29 test run for cadmium and lead required under paragraph (1)(iii).
   (5) The owner or operator of an affected facility may request that compliance with the cadmium or lead emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph 40 CFR 60.58b(b)(6).
   (6) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the cadmium or lead emission concentrations from three test runs or more shall be used to determine compliance.
   (7) Following the date of the initial performance test or the date on which the initial performance test is required to be completed under 40 CFR 60.8, the owner or operator of an affected facility shall conduct a performance test for compliance with the emission limits for cadmium and lead 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).
b. The procedures and test methods specified in paragraphs (b)(1) through (2)(xi) shall be used to determine compliance with the mercury emission limit.

(1) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.
(2) The EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC–19–10–1981—Part 10, as applicable, shall be used for flue gas analysis.
(3) The EPA Reference Method 29 or as an alternative ASTM D6784–02 shall be used to determine the mercury emission concentration. The minimum sample volume when using Method 29 for mercury shall be 1.7 cubic meters.
(4) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 29 test run for mercury required under paragraph (2)(iii).
(5) The percent reduction in the potential mercury emissions ($\%P_{Hg}$) is computed using equation 1:

$$\%P_{HG} = \left[\frac{E_i - E_o}{E_i}\right] X\ 100 \qquad \text{(equation 1)}$$

where:

$\%P_{HG}$ = percent reduction of the potential mercury emissions achieved.

$E_i$ = potential mercury emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis).

$E_o$ = controlled mercury emission concentration measured at the mercury control device outlet, corrected to 7 percent oxygen (dry basis).

(6) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the mercury emission concentrations or percent reductions from three test runs or more is used to determine compliance.
(7) The owner or operator of an affected facility may request that compliance with the mercury emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph 40 CFR 60.58b(b)(6).
(8) The owner or operator of an affected facility shall conduct an initial performance test for mercury emissions as required under 40 CFR 60.8.
(9) Following the date that the initial performance test for mercury is completed or is required to be completed under 40 CFR 60.8, the owner or operator of an affected facility shall conduct a performance test for mercury emissions on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months from the previous performance test; and must complete five performance tests in each 5-year calendar period).
(10) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit shall follow the procedures specified in 40 CFR 60.58b(m) for measuring and calculating carbon usage.

[40 CFR 60.38b, 40 CFR 60.58b (d) and PSD-FL-105, 105A, 105B and 105C]

**A.34.** Mercury Emissions Test Method and Procedures. All mercury emissions tests performed pursuant to the requirements of this rule shall comply with the following provisions.
a. The test method for mercury shall be EPA Method 29 adopted in Rule 62-297, F.A.C.
b. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
[Rule 62-296.416(3)(d), F.A.C.]

**A.35.** Mercury Emissions Testing. Mercury emissions testing shall be conducted on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months from the previous performance test; and must complete five performance tests in each 5-year calendar period). Mercury stack tests shall be performed downstream of control devices or upstream and downstream of the control devices when determining compliance with the alternative removal requirement. [PSD-FL-105(B) and (D)]

**A.36.** Hydrogen Chloride. HCl stack tests upstream and downstream of the control device(s) shall be conducted to calculate percent control to demonstrate compliance with the alternate removal limit. [PSD-FL-105(B)]

**A.37.** Beryllium. The test method for beryllium emissions shall be EPA Method 29, adopted and incorporated by reference in Rule 62-204.800, F.A.C. One sample shall constitute one test run. [PSD-FL-105(B)]

**A.38.** Total Fluoride. The test method for total fluoride emissions shall be EPA Method 13A, 13B, or modified Method 5 for fluorides, adopted and incorporated by reference in Rule 62-204.800, F.A.C. One sample shall constitute one test run. [PSD-FL-105(B) and PSD amendment 0112119-001-AC]

**Recordkeeping and Reporting Requirements**

**A.39.** Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority:

| Report | Reporting Deadline | Related Condition(s) |
|---|---|---|
| Notice of Malfunctions | Quarterly | **A.41.** |
| Notice of Excess Emissions | Quarterly | **A.42.** |
| CEMS Excess Emissions Data | Quarterly | **A.43.** |
| CEMS Data Report | Quarterly | **A.44.** |
| Natural Gas and Fuel Oil Records | Monthly | **A.45.** |
| Charging Rate Monitoring | Daily | **A.46.** |
| Segregated Solid Waste Record Keeping | Daily | **A.47.** |

**A.40.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

**A.41.** Malfunctions. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the DEP Southeast District Office 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 DEP Southeast District Office. [Rule 62-210.700(6), F.A.C.]

**A.42.** Excess Emissions. The permittee shall submit to the Department a written report of emissions in excess of emission limiting standard for each calendar quarter. The nature and cause of the excess emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of five years. [Rule 62-213.440, F.A.C.]

**A.43.** CEMS Excess Emissions Data Report. An excess emissions report shall be submitted to EPA Region 4 and the DEP Southeast District Office for every calendar quarter. The report shall include the following:

a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factors used, and the date and time of commencement and completion of each period of excess emissions.

b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the furnace/boiler system. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted shall also be reported.
c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments.
d. When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information shall be stated in the report.
e. Permittee shall maintain a file of all measurements, including continuous monitoring systems performance evaluations; all continuous monitoring systems or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this permit recorded in a permanent form suitable for inspection.
f. Excess emissions shall be defined as any applicable period during which the average emissions of CO, $NO_X$, and/or $SO_2$, as measured by the continuous monitoring system, exceeds the CO, $NO_X$, and/or $SO_2$ maximum emission limit (in ppm) or percent removal efficiency, as applicable, set for each pollutant in Specific Conditions **A.14., A.17.** and **A.18.** above.

[PSD-FL-105; Rules 62-204.800 and 62-213.440, F.A.C.; and, 40 CFR 60.7]

**A.44.** CEMS Data Report. Continuous emissions monitoring data shall be reported to the DEP Southeast District Office and EPA Region 4 on a quarterly basis in accordance with Rule 62-204.800(8), F.A.C. and 40 CFR 60.7.
[PSD-FL-105]

**A.45.** Natural Gas and Fuel Oil Records. Monthly records shall be maintained of the amount of natural gas and distillate fuel oil used by the auxiliary burners of each MSW unit, the equivalent heat input from natural gas and distillate fuel oil (calculated using the heat value for natural gas/fuel oil provided by the natural gas/fuel oil supplier), and the distillate fuel oil sulfur content (provided by fuel oil supplier). On an annual basis (no later than 30 days after the end of the calendar year), a demonstration must be performed based on the monthly records showing that the capacity factor for natural gas and distillate fuel oil for each unit was 10% or less. [Rule 62-213.440, F.A.C.]

**A.46.** Charging Rate Monitoring. The daily solid waste charging rate and hours of operation shall be determined and recorded for each MWC unit. The daily charging rate shall be determined each month on an average daily basis for each MWC unit using the Facility's truck scale weight data, refuse pit inventory and MWC operating data for the preceding calendar month. Monthly truck scale weight records on the weight of solid waste received and processed at the Facility and refuse pit inventory 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 per MWC unit for each day during the preceding calendar month. [Rules 62-4.070 (3) and 62-213.440 F.A.C.; 40 CFR 60. 58b(j); PSD-FL-105(B) and (D)]

**A.47.** Segregated Solid Waste Record Keeping. The following records shall be made and kept to demonstrate compliance with the segregated non-MSW percentage limitations of Specific Condition **A.4.**

a. Each segregated load of non-MSW materials, that is subject to the percentage weight limitations of Specific Condition **A.4.** which is received for processing shall be documented as to waste description and weight. The weight of all waste materials received for processing shall be measured using the facility truck scale and recorded.
b. 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 29 days. The resultant 30 day total weight of tires shall be divided by the total weight of all waste materials received in the same 30 day period, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 3% limitation.

c. 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 29 days. The resultant 30 day total weight of segregated non-MSW materials shall be divided by the total weight of all waste materials received in the same 30 day period, 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.

[PSD-FL-105(B)]

**Other Requirements**

**A.48.** Federal Rule Requirements. These units are subject to all applicable requirements of 40 CFR 60 Subpart Cb, Emissions Control Guidelines and Compliance Schedules for Municipal Solid Waste Combustors; 40 CFR 60 Subpart Eb, Standards of Performance for Large Municipal Waste Combustors; 40 CFR 61, and, Rule 62-296.416, F.A.C., Waste-to-Energy Facilities, except that where requirements in this permit are more restrictive, the requirements in this permit shall apply. [PSD-FL-105(B) and (D)]

**A.49.** Acid Rain Part Application. The designated representative shall submit a complete Acid Rain Part application to the Department before March 1 of the year following the three calendar year period in which the incinerator consumes 20 percent or more fossil fuel on a British thermal unit (BTU) basis. [Rule 62-214.320(1)(h), F.A.C.]

**A.50.** Name Plate. Each solid waste combustor shall have a metal name plate affixed in a conspicuous place on the shell showing manufacturer, model number, type waste, rated capacity and certification number. [PSD-FL-105]

## Subsection B. Emissions Units 004 and 005

**The specific conditions in this section apply to the following emissions units:**

| EU No. | Brief Description |
|---|---|
| 004 | 236 Ton Lime Silo with Baghouse |
| 005 | Ash Handling System |

Emissions unit 004 is a 236 ton capacity silo for storage of pebble lime. It is part of the spray dry absorber (SDA) system used for control of acid gases and sulfur dioxide emissions from the municipal waste combustion units. A supply truck pneumatically transfers pebble lime to the silo through a fill line. A Wheelabrator Air Pollution Control Jet III baghouse (Model No. 1016, BA-108) is used to control particulate matter emissions during silo filling. The baghouse parameters are as follows: stack height = 102 feet; exit dimensions (rectangular vent) = 2.67 x 1 feet; exit temperature = 40-100 °F, actual volumetric flow rate = 1,500 acfm. The initial startup date of the silo was February, 1992.

Emissions unit 005 is the Ash Handling System. It receives fly ash and spray dryer reaction products (i.e., calcium sulfate, calcium chloride, calcium hydroxide and calcium fluoride). Particulate matter and visible emissions from the ash handling system are controlled by wet processing in an enclosed building. The initial startup date of the ash handling system was April 5, 1991.

*{Permitting Notes: Emissions units 004 and 005 are minor sources that were permitted under AC06-187000, AC06-187001 (March 12, 1991) and AO06-208864 and are regulated under Rule 62-210.300, F.A.C., Permits Required. Emissions unit 005 is also permitted under 0112119-003-AC.}*

*{Permitting Note: Emissions unit 005 is also subject to requirements of PSD-FL-105(B) and 40 CFR 60, Subpart Cb. The requirements of 40 CFR 60, Subpart Cb are stated in Subsection A. and referenced in this subsection.}*

### Essential Potential to Emit (PTE) Parameters

**B.1.** Permitted Capacity. The lime storage silo filling rate shall not exceed 50,000 lbs/hr of pebble lime. [Rule 62-4.070(3) F.A.C., and Permit No. 0112119-007-AC (revision of Permit No. AC 06-187000)]

**B.2.** Hours of Operation. Each unit may operate continuously, i.e., 8,760 hrs/yr. [Rules 62-213.440 and 62-210.200(PTE), F.A.C.; AC06-187000 and AC06-187001]

### Control Technology

**B.3.** Ash Handling Facilities. The potential for dust generation by ash handling activities will be mitigated by quenching or conditioning the ash prior to loading in ash transport trucks. Ash handling facilities shall be enclosed (including the proposed future metal recovery area). Unprocessed refuse storage areas which must be open for operational purposes (e.g., tipping floor of the refuse bunker while trucks are entering and leaving) will be under negative air pressure. Residue from the grates, and grate siftings shall be discharged into the bottom ash quenching system, and ash from the combustor/boiler and fabric filter hoppers shall be discharged into the fly ash conditioning system during normal operations to minimize visible dust generation. The ash/residue in the Ash Handling Building shall remain sufficiently moist to minimize dust during storage and handling operations. Compliance with this condition shall be determined in accordance with Specific Condition B**.7.** [PSD-FL-105(B)]

### Emission Limitations and Standards

*{Permitting Note: The attached Table 1, Summary of Air Pollutant Standards, 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.4.-B.7.** are based on the specified averaging time of the applicable test method.

**B.4.** Particulate Matter Emissions. Particulate matter emissions from the lime silo baghouse (E.U. 004) shall not exceed 0.010 gr/dscf, nor 0.021 tons/year. [AC06-187000 and AC06-187001]

**B.5.** Visible Emissions. Visible emissions from the lime silo (E.U. 004) shall not exceed 5% opacity. [Rule 62-297.620(4), F.A.C., and AC06-187000 and AC06-187001]

**B.6.** Ash Handling Emission Points and Ash Processing Equipment. All conveyor loading points, transfer points and all ash processing equipment shall be properly enclosed. The facility shall be operated by personnel properly trained for the equipment herein. [AC06-187000 and AC06-187001]

**B.7.** 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 (including conveyor transfer points).
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; and PSD-FL-105(B)]

**Excess Emissions**

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

**B.8.** Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1). F.A.C.]

**B.9.** Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

**Test Methods and Procedures**

*{Permitting Note: The attached 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.10.** Test Methods. Required tests shall be performed in accordance with the following reference methods.

| Method | Description of Method and Comments |
|---|---|
| 1-4 | Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content |
| 5 | Method for Determining Particulate Matter Emissions (All PM is assumed to be $PM_{10}$.) |
| 9 | Visual Determination of the Opacity of Emissions from Stationary Sources |
| 22 | Determination of Fugitive Opacity |

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [AC06-187000 and AC06-187001]

**B.11.** Annual Compliance Tests Required. Annual visible emissions compliance tests shall be performed for each emissions unit. [Rule 62-297.310(7), F.A.C.]

**B.12.** Compliance Tests Prior To Renewal. Compliance tests shall be performed for PM from emissions unit 004 once every 5 years. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Condition **B.4.** [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]

**B.13.** Visible Emissions. The test method for visible emissions shall be EPA Method 9, adopted and incorporated in Rule 62-204.800, F.A.C. The visible emissions tests for the lime silo shall be conducted for the entire truck unloading operation. [AC06-187000 and AC06-187001]

**B.14.** Particulate Matter Emissions. The test method for particulate matter emissions for all units shall be EPA Method 5, adopted and incorporated in Rule 62-204.800, F.A.C. [AC06-187000 and AC06-187001]

**B.15.** Fugitive Ash. See Specific Condition **B.7.** [Rule 62-213.440, F.A.C.]

**Recordkeeping and Reporting Requirements**

**B.16.** Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority:

| Report | Reporting Deadline | Related Condition(s) |
|---|---|---|
| Excess Emissions From Malfunctions | Quarterly | **B.17.** |

**B.17.** Excess Emissions From Malfunctions. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the DEP Southeast District Office 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 DEP Southeast District Office. [Rule 62-210.700(6), F.A.C.]

## SECTION IV. APPENDICES.

**The Following Appendices Are Enforceable Parts of This Permit:**

Appendix A, Glossary.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix NESHAP, Subpart A – General Provisions.
Appendix NESHAP, Subpart ZZZZ – Stationary Reciprocating Internal Combustion Engines.
Appendix NSPS, Subpart A – General Provisions.
Appendix NSPS, Subpart Cb – Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors.
Appendix NSPS, Subpart Eb – Standards of Performance for Large Municipal Waste Combustors.
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.

## REFERENCED ATTACHMENTS.

**The Following Attachments Are Included for Applicant Convenience:**

Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996).
Table H, Permit History.
Table 1, Summary of Air Pollutant Standards and Terms.
Table 2, Compliance Requirements.