City of Tampa

McKay Bay Refuse to Energy Facility

Facility ID No. 0570127
Hillsborough County

Title V Air Operation Permit Renewal

Final Permit No. 0570127-006-AV
(Renewal of Title V Air Operation Permit No. 0570127-005-AV)

Permitting Authority:

State of Florida
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Title V Air Operation Permit Renewal

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Permit No. 0570127-006-AV
McKay Bay Refuse to Energy Facility
Facility ID No. 0570127
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 and to incorporate all of the recent amendments to the federal regulations 40 Code of Federal Regulations (CFR) 60, Subpart Cb - Standards of Performance for Large Municipal Waste Combustors Emissions Guidelines.

The existing McKay Bay Refuse to Energy Facility is located at 107 North 34th Street, Tampa, in Hillsborough County. UTM Coordinates are: Zone 17, 360.0 km East and 3091.9 km North. Latitude is: 27° 56' 51" North; and Longitude is: 82° 25' 14" 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 62-210 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: March 9, 2012
Renewal Application Due Date: July 26, 2016
Expiration Date: March 8, 2017

Executed in Tallahassee, Florida
Electronic Signature

JFK/aal/yha

Subsection A. Facility Description.

McKay Bay Refuse-to-Energy Facility began commercial operation approximately October 1985. The facility consists of four stationary water wall mass burn type waste-to-energy units. Each unit has a short term tonnage capacity of 288 tons of waste per day and a maximum heat input capacity of 120 million British thermal units (MMBtu)/hour. Nominal heat input capacity is 104 MMBtu/hour. These capacities are not limited by this permit. Instead the nominal capacity is limited to 250 tons of waste per day per unit, approximately 1,000 tons of municipal solid waste (MSW) per day at 5,000 British thermal units per pound (Btu/lb) as determined by a rolling 12-month average. Short-term capacity is restricted by limiting steam production, which effectively limits heat input. Natural gas fired auxiliary burners and combustion control systems with continuous monitoring devices for combustion and process parameters and sulfur dioxide (SO_2), nitrogen oxides (NO_X) and carbon monoxide (CO) are installed to improve combustion efficiency and control. Emissions from the four municipal waste combustors (MWC) units are monitored by the continuous emissions monitoring system (CEMS). The four units are coupled to a common General Electric steam turbine with a 22.5 megawatt generator (MW) and a cooling tower. The air pollution control equipment for each line consists of a spray dryer absorber (SDA), fabric filter baghouse, a powdered activated carbon injection system, selective non-catalytic reduction system (SNCR), and auxiliary gas burners are installed in the furnaces. The facility also has an ash handling system, including scrubbers, that are operated as needed for the ash building and handling system with a 50 feet high and 1.3 feet exit diameter stack, two Pebble Lime storage silos with common vent filter, and two activated carbon storage silos, each silo is equipped with its own vent filter. Lime used in the spray dryer absorbers for each municipal waste combustor is stored in two silos. The carbon injection system utilizes two activated carbon storage silos with separate discharges for each municipal waste combustor unit. The activated carbon is utilized for the control of mercury and dioxin/furans. Emissions from the silos are controlled by baghouses. The four MWC's have separate stacks (flues) located within a common enclosure that is 201 feet high and 4.2 feet exit diameter for each stack flue.

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

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
Regulated Emissions Units	
100	Ash Building and Handling System
101	Two Pebble Lime Storage Silos
102	Two Activated Carbon Storage Silos
103	120 MMBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit 1
104	120 MMBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit 2
105	120 MMBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit 3
106	120 MMBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit 4
Unregulated Emissions Units and Activities	
107	Cooling Tower

Subsection C. Applicable Regulations.

Based on the Title V Air Operation Renewal application received October 28, 2010, this facility is a major source of hazardous air pollutants (HAP). The existing facility is a Prevention of Significant Deterioration (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.
Federal Rule Citations	
40 CFR 60, Subpart A, General Provisions.	100, 101, 102, 103, 104, 105 & 106
40 CFR 60, Subpart Cb, Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors.	103, 104, 105 & 106
State Rule Citations	
Rule 62-204, F.A.C., Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference.	100, 101, 102, 103, 104, 105 & 106
Rule 62-210, F.A.C., Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms.	
Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD).	
Rule 62-296, F.A.C., Emission Limiting Standards.	
Rule 62-297, F.A.C., Stationary Sources - Emissions Monitoring.	

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. Roads, parking areas, and yards are paved. However, at times alternative areas covered with rock, shell, or other "non-pavement" materials may be used. Periodic sweeping is used to remove particulate matter from roads and other paved areas.
b. The tipping floor is located in an enclosed building. Airflow to the boilers provides a negative draft in the tipping building, which minimizes emissions of particulate matter. Floors are maintained as required by the facility's solid waste permit.
c. Unpaved areas of the facility are maintained and either sodded or landscaped.
d. Boiler ash and grate siftings are quenched and wetted. Ash conveyors and transfer points are enclosed and maintained to minimize fugitive emissions. The fly ash is wetted in a pug mill ash conditioning system and then blended with the wet boiler ash and grate siftings. The wetted combined ash is processed for recyclable ferrous and non-ferrous metals and stored in a building prior to loading into a truck for disposal. The scalper building and ash management building are equipped with wet scrubbers to control fugitive emissions. The ash hauling trucks are equipped with tarps.

[Rule 62-296.320(4)(c), F.A.C., 0570127-002-AC/PSD-FL-086(A), and proposed by applicant in Title V air operation permit renewal application received October 28, 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. & 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 103, 104, 105 and 106

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

EU No.	Brief Description
103	120 MMBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit 1
104	120 MMBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit 2
105	120 MMBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit 3
106	120 MMBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit 4

The facility consists of four stationary water wall mass burn type waste-to-energy units. Each unit has a short term tonnage capacity of 288 tons of waste per day and a maximum heat input capacity of 120 MMBtu/hr. Nominal heat input capacity is 104 MMBtu/hr. These capacities are not limited by this permit. Instead the nominal capacity is limited to 250 tons of waste per day per unit (approximately 1,000 tons of municipal solid waste per day) as determined by a rolling 12-month average. Short-term capacity is restricted by limiting steam production, which effectively limits heat input. Units 1, 2, 3 and 4 are subject to multi-unit emissions caps of 460 tons for SO_2, 185 tons for CO and 679 tons for NO_X in any consecutive 12 month period.

Units 1, 2, 3 and 4 began commercial operation approximately October, 1985. Emissions from the four MWC units are monitored by CEMS. To comply with the NSPS at 40 CFR 60, Subpart Cb, these units were modified to include an air pollution control (APC) system for each line. Upon completion of the retrofit the units resumed operation in 2001 and include the following: a spray dryer absorber, a fabric filter baghouse, a powdered activated carbon injection system, and a SNCR. Auxiliary gas burners were also installed in the furnaces. The four MWC's have separate stacks (flues) having an exit diameter of 4.2 feet each located within a common enclosure that is 201 feet high.

{Permitting Note: These emissions units are regulated under New Source Performance Standard (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, in Rule 62-204.800(9)(b), F.A.C.; Rule 62-212.400(5), F.A.C.,PSD; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT); Rule 62-296.401(2), F.A.C., Incinerators; and Rule 62-296.416, F.A.C., Waste-to-Energy Facilities.}

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. Each of the four municipal waste combustor units shall have a maximum rated capacity of 79,300 pounds of steam produced per hour based on a 4-hour block averaged measurement, with a net steam energy of 1,103 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). This capacity shall not be exceeded. Additionally, each unit shall not be charged with more than 250 tons of waste per day, as determined by a rolling 12-month average. The procedures specified in paragraphs a. and b. shall be used for calculating municipal waste combustor unit capacity as defined under 40 CFR 60.31b. 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.

[Rules 62-204.800(9)(b), 62-210.200(PTE), F.A.C., and 0570127-002-AC/PSD-FL-086(A)]

A.2. Load Level. Unit load means the steam load of the MWC measured as specified in 40 CFR 60 Subpart Cb. Compliance with load level requirements shall be determined by a steam meter using ASME Power Test Code for Steam Generating Units, Power Test Code 4.1, Section 4 (see NSPS, 40 CFR 60 Subpart Cb). Each

MWC unit shall not operate at a load level greater than 110 percent of the unit's maximum demonstrated unit load based on 4-hour block averaged measurements of steam flow. The maximum demonstrated unit load is the highest arithmetic averaged measurement of steam flow recorded for four consecutive hours during the most recent dioxin/furan performance stack test in which compliance with the dioxin/furan emission limit was achieved. The steam load and fabric filter temperature set on one unit during annual dioxin testing may be applied to all units as described in NSPS, 40 CFR 60 Subpart Cb. Higher loads are allowed for testing purposes as specified at NSPS, 40 CFR 60 Subpart Cb and Specific Condition **A.35.** of this permit. [Rule 62-204.800(9), F.A.C., NSPS, 40 CFR 60 Subpart Cb]

A.3. 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., and NSPS, 40 CFR 60 Subpart Cb]

A.4. Methods of Operation - Fuel.

a. *Allowable Fuels.*

(1) The only fuels allowed to be burned in the MWC are municipal solid waste, with natural gas as an auxiliary fuel (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). Other wastes shall not be burned without written prior approval from the Department.

(2) The primary fuel for the facility is MSW, including the items and materials that fit within the definition of MSW contained in NSPS, 40 CFR 60 Subpart Cb or Section 403.706(5), Florida Statutes (1995).

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.

(2) and shall not knowingly burn:

(a) Untreated biomedical waste from biomedical waste generators regulated pursuant to Chapter 64E-16, F.A.C., and from other similar generators (or sources). See the attached Appendix BW: Biomedical Waste Definitions, for definitions of what constitutes biomedical waste;
(b) Segregated loads of biological waste.

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

(1) Well mixed with MSW in the refuse pit; or
(2) Alternately charged with MSW in the hopper.

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, below (see Specific Conditions **A.4.e., A.4.f.** and **A.40.**). For the purposes of this permit, a segregated load is defined to mean a container or truck that is almost completely or exclusively filled with a single item or homogeneous composition of waste material, as determined by visual observation.

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

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

e. *Waste Tires.* Subject to the conditions and limitations contained in this permit, waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 3%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined by using a rolling 30-day average, in accordance with Specific Condition **A.40.**, below.

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 c. or d., 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 prior approval of the Department.

[Rules 62-213.410 & 62-213.440, F.A.C., and Permit No. 0570127-002-AC/PSD-FL-086(A)]

A.5. Auxiliary Fuel Burners. Auxiliary burners for each unit shall be fired only with natural gas. The annual capacity factor for natural gas for each unit shall be limited to 10% or less. The annual capacity factor for natural gas is the ratio between the heat input to the unit from natural gas during a calendar year and the potential heat input to the unit had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity. Monthly records shall be maintained of the amount of natural gas used by the auxiliary burners of each unit and the equivalent heat input from natural gas. 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 for each unit was 10% or less. [Rules 62-210.200, 62-213.440(1), F.A.C. and Permit No. 0570127-002-AC/PSD-FL-086(A)]

{Permitting Note: Nitrogen oxides emissions from the auxiliary burners are expected to be approximately 2.4 pounds per hour (lb/hr) and 10.5 tons/year per unit, These emissions are included in, and not in addition to, combustor emissions. Allowable emissions for MSW combustors include emissions from auxiliary burners. This condition effectively limits annual average heat input from natural gas to approximately 12 MMBtu/hr per unit.}

A.6. Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C., and Permit No. 0570127-002-AC/PSD-FL-086(A)]

Control Technology

A.7. Required Controls. For each unit the permittee is required to operate and maintain a fabric filter baghouse, a spray dryer absorber, a powdered activated carbon injection system, and SNCR.

a. *Fabric filters baghouse.* Each unit is equipped with a particulate control baghouse designed, constructed and operated to control a particulate matter so as not to exceed a maximum emission rate of 25 mg/dscm corrected to 7 percent oxygen (O_2). These baghouses must be equipped with pressure drop monitoring equipment.

b. *Spray dryer absorbers (SDA).* Each unit is equipped with a SDA (scrubber) designed, constructed and operated so as to remove SO_2 at an efficiency of 75 percent, or not to exceed a maximum emission rate of 29 parts per million by volume on a dry basis (ppmvd) corrected to 7 percent O_2, 24-hour daily block geometric mean, whichever is less stringent.

c. *Carbon Injection.* Each unit is equipped with a carbon injection system. The activated carbon is utilized for the control of mercury and dioxin/furans. The carbon injection rate must be estimated and maintained in compliance with requirements set forth in 40 CFR 60.58b(m).

d. *Selective Non Catalytic Reduction System (SNCR).* Each unit is equipped with a selective non-catalytic reduction system designed, constructed and operated so as not to exceed a maximum NO_X emission rate of 205 ppmvd corrected to 7 percent O_2, 24-hour daily block arithmetic mean (midnight to midnight).

[0570127-002-AC/PSD-FL-086(A)]

Emission Limitations and Standards

{Permitting Note: The emissions standards apply to each municipal waste combustor unit. 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.8. - A.18.** are based on the specified averaging time of the applicable test method.

{Permitting Note: The May 10, 2006 amendments to NSPS, 40 CFR 60 Subpart Cb, changed some of the emission standards and limitations for Units 1-4. The Four (4) air pollutant standards/limitations that were lowered under the amendments are: Particulate Matter (PM), Cadmium (Cd), Lead (Pb), and Mercury (Hg).}

A.8. Visible Emissions (VE). 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 from each unit is 10 percent (6-minute average).

[Rule 62-204.800(9)(b), F.A.C., NSPS, 40 CFR 60 Subpart Cb, and Permit No. 0570127-002-AC/PSD-FL-086(A)]

A.9. Sulfur Dioxide (SO_2). As determined by the CEMS, the emissions of SO_2 contained in the gases discharged to the atmosphere from each MWC unit shall not exceed:

a. *Pursuant to NSPS and PSD-FL-086(A)*: 29 ppmvd or 25 percent of the potential SO_2 emission concentration (75-percent reduction by weight or volume), corrected to 7 percent O_2 (dry basis), whichever is less stringent. Compliance with this emission limit is based on a 24-hour daily block geometric mean (midnight to midnight).

b. *Pursuant to PSD-FL-086(A)*: Emissions from all four MWC Units shall not exceed 460 tons in any consecutive 12-month period.

[Rule 62-204.800(9)(b), F.A.C., NSPS, 40 CFR 60 Subpart Cb, and Permit No. 0570127-002-AC/PSD-FL-086(A)]

A.10. Nitrogen Oxides (NO_X). As determined by the CEMS, the emissions of NO_X contained in the gases discharged to the atmosphere from each MWC unit shall not exceed:

a. *Pursuant to NSPS and PSD-FL-086(A)*: 205 ppmvd, corrected to 7 percent O_2, dry basis.

b. *Pursuant to PSD-FL-086(A)*:

(1) 0.335 lb/MMBtu, heat input.

(2) 40.1 lbs/hr. Compliance with this emission limit is based on a 24-hour daily block arithmetic mean (midnight to midnight).

(3) Emissions from all four MWC units shall not exceed 679 tons in any consecutive 12-month period.

[Rule 62-204.800(9)(b), F.A.C., NSPS, 40 CFR 60 Subpart Cb, and Permit No. 0570127-002-AC/PSD-FL-086(A)]

A.11. Carbon Monoxide (CO). As determined by the CEMS, the emissions of CO contained in the gases discharged to the atmosphere from each MWC unit shall not exceed:

a. *Pursuant to NSPS and PSD-FL-086(A)*: 100 ppmvd, measured at the combustor outlet in conjunction with a measurement of O_2 concentration, corrected to 7 percent O_2, dry basis, 4-hour block arithmetic average.

b. *Pursuant to PSD-FL-086(A)*:

(1) 0.0995 lb/MMBtu, heat input, 4-hour block arithmetic average.

(2) 11.9 lbs/hr, 4-hour block arithmetic average.

(3) Emissions from all four MWC Units shall not exceed 185 tons in any consecutive 12-month period.

[Rule 62-204.800(9)(b), F.A.C., NSPS, 40 CFR 60 Subpart Cb, and Permit No. 0570127-002-AC/PSD-FL-086(A)]

A.12. Particulate Matter (PM). As determined by stack tests, the emissions of PM contained in the gases discharged to the atmosphere from each MWC unit shall not exceed:

a. *Pursuant to NSPS*: 25 milligrams per dry standard cubic meter (mg/dscm), corrected to 7 percent O_2.

b. *Pursuant to PSD-FL-086(A)*:

(1) 27 mg/dscm, corrected to 7 percent O_2.

(2) 0.0230 lb/MMBtu, heat input.

(3) 2.76 lbs/hr.

(4) 12.1 tons/yr.

[Rule 62-204.800(9)(b), F.A.C., NSPS, 40 CFR 60 Subpart Cb, and Permit No. 0570127-002-AC/PSD-FL-086(A)]

A.13. Cadmium (Cd). As determined by stack tests, the emissions of Cd contained in the gases discharged to the atmosphere from each MWC unit shall not exceed:

a. *Pursuant to NSPS*: 0.035 mg/dscm, corrected to 7 percent O_2.

b. *Pursuant to PSD-FL-086(A)*:

(1) 0.040 mg/dscm, corrected to 7 percent O_2.

(2) 3.42E-05 lb/MMBtu, heat input.

(3) 4.10E-03 lb/hr.
(4) 0.0179 tons/yr.

[Rule 62-204.800(9)(b), F.A.C., NSPS, 40 CFR 60 Subpart Cb, and Permit No. 0570127-002-AC/PSD-FL-086(A)]

A.14. Lead (Pb). As determined by stack tests, the emissions of Pb contained in the gases discharged to the atmosphere from each MWC unit shall not exceed:

a. *Pursuant to NSPS*: 0.40 mg/dscm, corrected to 7 percent O_2.
b. *Pursuant to PSD-FL-086(A)*:
   (1) 0.44 mg/dscm, corrected to 7 percent O_2.
   (2) 3.76E-04 lb/MMBtu, heat input.
   (3) 0.0451 lb/hr.
   (4) 0.197 ton/yr.

[Rule 62-204.800(9)(b), F.A.C., NSPS, 40 CFR 60 Subpart Cb, and Permit No. 0570127-002-AC/PSD-FL-086(A)]

A.15. Hydrogen Chloride (HCl). As determined by stack tests, the emission limit for HCl contained in the gases discharged to the atmosphere from each MWC unit shall not exceed:

a. *Pursuant to NSPS and PSD-FL-086(A)*: 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 O_2 (dry basis), whichever is less stringent;
b. *Pursuant to PSD-FL-086(A)*: 67.9 tons/yr.

[NSPS, 40 CFR 60 Subpart Cb, and Permit No. 0570127-002-AC/PSD-FL-086(A)]

A.16. Dioxins/Furan (D/F). As determined by stack tests, the emission limit for D/F contained in the gases discharged to the atmosphere from each MWC unit that do not employ an electrostatic precipitator-based emission control system shall not exceed:

a. *Pursuant to NSPS and PSD-FL-086(A)*: 30 nanograms (ng)/dscm (total mass), corrected to 7 percent O_2.
b. *Pursuant to PSD-FL-086(A)*:
   (1) 2.56E-08 lb/MMBtu, heat input.
   (2) 3.07E-06 lb/hr.
   (3) 1.35E-05 ton/yr.

[62-204.800(9)(b), F.A.C., NSPS, 40 CFR 60 Subpart Cb, and 0570127-002-AC/PSD-FL-086(A)]

A.17. Fluoride. As determined by stack tests, the emission limit for fluoride contained in the gases discharged to the atmosphere from each MWC unit shall not exceed:

a. 1.5 lbs/hr.
b. 0.0125 lb/MMBtu, heat input.
c. 6.57 tons/yr.

[Permit No. 0570127-002-AC/PSD-FL-086(A)]

A.18. Mercury (Hg). As determined by stack tests, the emissions of Hg contained in the gases discharged to the atmosphere from each MWC unit shall not exceed:

a. *Pursuant to NSPS*: 0.050 mg/dscm, corrected to 7 percent O_2 or 15 percent of the potential Hg emission concentration (85-percent reduction by weight), whichever is less stringent.
b. *Pursuant to PSD-FL-086(A)*:
   (1) 0.070 mg/dscm corrected to 7 percent O_2, or 15 percent of the potential Hg emission concentration (85-percent reduction by weight), whichever is less stringent.
   (2) 0.0605 ton/yr.

[Rule 62-204.800(9)(b), F.A.C., NSPS, 40 CFR 60 Subpart Cb, and Permit No. 0570127-002-AC/PSD-FL-086(A)]

Excess Emissions

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

A.19. Startup, Shutdown and Malfunction. The emission limitations for this facility shall apply at all times, except during periods of warm-up, startup, shutdown, or malfunctions, provided that the duration of startup, shutdown, or malfunction periods do not exceed three (3) hours per occurrence. The duration of warm-up periods is not limited. The startup period commences when the affected facility begins the continuous burning of waste and does not include any warm-up period when the affected facility is combusting only natural gas and waste is not being introduced to the combustor. The use of waste solely to provide thermal protection to the grate during the warm-up periods when waste is not being fed to the combustor is not considered to be continuous burning. During all startups, shutdowns, and malfunctions, the owner/operator shall use best operational practices to minimize air pollutant emissions.
[Rules 62-210.700, and 62-204.800(9)(b), F.A.C., NSPS, 40 CFR 60 Subpart Cb and 0570127-002-AC/PSD-FL-086(A)]

A.20. Excess Emissions Allowed. Excess emissions resulting from 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 per occurrence. A malfunction means any unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner.
[NSPS, 40 CFR 60 Subpart Cb]

A.21. 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.]

Federal Requirements

A.22. Emissions Guideline. The affected emissions units shall comply with all applicable provisions contained in the following attached appendices:

a. Appendix NSPS, 40 CFR 60 Subpart A.
b. Appendix NSPS, 40 CFR 60 Subpart Cb.

[Rule 62-204.800(9)(a) and (9)(b), F.A.C.]

Monitoring of Operations

A.23. Continuous Load Monitoring. The owner or operator shall install, calibrate, maintain, and operate a steam flow meter, measure steam flow in kilograms (or pounds) per hour on a continuous basis, and record the output of the monitor (in accordance with the ASME method described in 40 CFR 60.58b(i)(6)). Steam flow shall be calculated in 4-hour block arithmetic averages. Higher loads are allowed for testing purposes pursuant to 40 CFR 60.53b(b). [Rule 62-204.800(9)(a) and (b), F.A.C., NSPS, 40 CFR 60 Subpart Cb, and permit No. 0570127-002-AC/PSD-FL-086(A)]

A.24. Carbon Injection Rate. The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit, or the dioxin/furan emission limits, or the dioxin/furan emission level specified in NSPS, 40 CFR 60 Subpart Cb shall follow the procedures specified in paragraphs a. through c.

a. During the performance tests for dioxins/furans and mercury, as applicable, the owner or operator shall estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed, as specified in paragraphs (1) and (2).
   (1) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for mercury emissions and each subsequent performance test for mercury emissions.

(2) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions.

b. During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate (e.g., screw feeder setting) must equal or exceed the level(s) documented during the performance tests specified under paragraphs a.(1) and a.(2).

c. The owner or operator of an affected facility shall estimate the total carbon usage of the plant (kilograms or pounds) for each calendar quarter by two independent methods, according to the procedures in paragraphs (1) and (2).
   (1) The weight of carbon delivered to the plant.
   (2) Estimate the average carbon mass feed rate in kilograms per hour or pounds per hour for each hour of operation for each affected facility based on the parameters specified under paragraph a., and sum the results for all affected facilities at the plant for the total number of hours of operation during the calendar quarter.

[NSPS, 40 CFR 60 Subpart Cb and permit No. 0570127-002-AC/PSD-FL-086(A)]

A.25. Compliance with the PM Control Device Temperature. 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 NSPS, 40 CFR 60 Subpart Cb. The PM control device temperature shall be calculated in 4-hour block arithmetic averages. Each MWC unit shall be allowed to operate up to 17°C (30° F) above the unit's maximum demonstrated PM control device temperature. The maximum demonstrated PM control device temperature is the highest 4-hour arithmetic measurement of temperature at the inlet to the PM control device record for 4 consecutive hours during the most recent dioxin/furan performance test which complied with the limit given above. The PM control device inlet temperature and the steam flow for each unit during the stack test shall be continuously monitored and recorded in accordance with NSPS, 40 CFR 60, Subpart Cb. Higher temperatures are allowed for testing purposes, as specified at NSPS, 40 CFR 60 Subpart Cb. [Rule 62-204.800(9), F.A.C., NSPS, 40 CFR 60 Subpart Cb and permit No. 0570127-002-AC/PSD-FL-086(A)]

A.26. Other Monitoring Requirements. To ensure 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 NSPS, 40 CFR 60 Subpart Cb;
b. Install, operate and maintain continuous monitors (CEMS) for O_2, CO, SO_2, NO_X and temperature in accordance with NSPS, 40 CFR 60 Subpart Cb; and
c. Record and maintain the CEMS data in accordance with NSPS, 40 CFR 60 Subpart Cb.

[NSPS, 40 CFR 60 Subpart Cb and 0570127-002-AC/PSD-FL-086(A)]

A.27. Charging Rate Monitoring. The average daily solid waste charging rate shall be determined on a monthly basis 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 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 facility, 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 per MWC unit for each day during the preceding calendar month. [Rules 62-204.800(9), F.A.C., NSPS, 40 CFR 60 Subpart Cb, and 0570127-002-AC/PSD-FL-086(A)]

Continuous Monitoring Requirements

A.28. Continuous Emissions Monitoring Systems (CEMS) Required. For these emissions units, the permittee shall calibrate, operate and maintain CEMS for monitoring opacity, SO_2, NO_X and CO. (See Specific Conditions **A.9. - A.11.**). [Rule 62-213.440, F.A.C., and NSPS, 40 CFR 60 Subpart Cb, and permit No. 0570127-002-AC/PSD-FL-086(A)]

A.29. Continuous Opacity Monitoring System (COMS). The permittee shall operate and maintain a COMS to demonstrate compliance with the stack opacity standard for Unit No's 1-4. The COMS shall monitor and record data during all periods of Units 1-4 operation including startup, shutdown, malfunction or emergency conditions, but not including COMS breakdowns, repairs, or calibration checks. [Permit No. 0570127-002-AC/PSD-FL-086(A)]

A.30. CEMS Operation and Calibration Requirements. The CEMS required in Specific Condition **A.28.** shall be operated in accordance with the following requirements:

a. In the event of a replacement of a major component of a CEMS, a performance specification test, in accordance with 40 CFR 60, Appendix B, shall be conducted within 60 days of such replacement.
b. CEMS data shall be recorded during periods of startup, shutdown, and malfunction, but shall be excluded from emissions averaging calculations for carbon monoxide and opacity.
c. A malfunction means any sudden and 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, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.
d. The procedures under 40 CFR 60.13 shall be followed for evaluation and operation of all CEMS.
e. Opacity monitoring system data shall be reduced to 6-minute averages, based on 36 or more data points, and gaseous CEMS data shall be reduced to 1-hour averages, based on 4 or more data points, in accordance with 40 CFR 60.13(h).
f. For purposes of reports required under this permit, excess emissions are defined as any calculated average emission concentration which exceeds the applicable emission limits in Specific Conditions **A.8. - A.18.**
g. Quality Assurance Procedures of 40 CFR 60 Appendix F applicable to these CEMS shall be adhered to. These shall include, but not be limited to:
   (1) *Calibration Drift Assessment.* The permittee shall keep all required records, and make them available for Department inspection. The permittee shall report as soon as possible by telephone any instances of Out-of-Control Periods due to calibration drift criteria.
   (2) *Data Accuracy Assessment*. The permittee shall keep all required records, and make them available for Department inspection. The permittee shall report as soon as possible by telephone any instances of Out-of-Control Periods due to excessive inaccuracy.
   (3) *Reporting Requirements*. The permittee shall submit a Data Assessment Report for each quarterly audit on each CEMS.

[0570127-002-AC/PSD-FL-086(A)]

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.31. 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 or 5B	Method for Determining Particulate Matter Emissions (All PM is assumed to be PM_{10}.)
6, 6A, 6B or 6C	Determination of Sulfur Dioxide
7, 7A, 7C, 7D or 7E	Determination of Nitrogen Oxide 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 {Note: The method shall be based on a continuous sampling train.}

Method	Description of Method and Comments
12 or 29	Determination of Inorganic Lead Emissions from Stationary Sources
13A or 13B	Determination of Total Fluoride Emissions from Stationary Sources
23	Determination of Dioxin/Furan Emissions From Stationary Sources
25 and or 25A	Method for Determining Gaseous Organic Concentrations (Flame Ionization)
26 or 26A	Determination of Hydrogen Chloride Emissions From Stationary Sources
29	Determination of Metals Emission from Stationary Sources (Mercury, Cadmium, Lead)

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(9), F.A.C. No other methods may be used unless prior written approval is received from the Department. [40 CFR 60.54(b)(2), 62-297.401, F.A.C., and 0570127-002-AC/PSD-FL-086(A)]

A.32. 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.33. Annual Compliance Tests Required. Annual testing (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) shall be conducted on each emission unit (EU) to demonstrate compliance with the emissions standards for VE, PM, Cd, D/F, Pb and Hg. Annual testing (no more than 12 calendar months following the previous performance test) shall also be conducted on each EU to demonstrate compliance with the emissions standards for HCl.
[NSPS, 40 CFR 60 Subpart Cb, and 0570127-002-AC/PSD-FL-086(A)]

{Permitting Note: Refer to the attached e-mails dated January 22, 2009 between the Department and the U.S. EPA regarding the required testing frequency for HCl.}

A.34. Compliance Tests Prior To Renewal. Compliance tests shall be performed for Fluoride once every 5 years. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Conditions **A.8. - A.18.** [62-297.310(7)(a), F.A.C.]

A.35. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Higher loads are allowed for testing purposes as specified at 40 CFR 60.53b(b). [Rules 62-297.310(2) & (2)(b), F.A.C. and 0570127-002-AC/PSD-FL-086(A)]

A.36. CEMS Annual Emissions Requirement. The owner or operator shall use data from the NO_X, SO_2 and CO CEMS when calculating annual emissions for purposes of computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for purposes of computing emissions pursuant to the reporting requirements of Rule 62-210.370(3), F.A.C., Annual Operating Report. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of each emissions unit.
[Rules 62-210.200(Definitions), 62-210.370(3), F.A.C. and 0570127-002-AC/PSD-FL-086(A)]

A.37. Other Testing Requirements.

a. Pursuant to 40 CFR 60.58b(c)(3), EPA Reference Method 5 shall be used for determining compliance with the particulate matter emission limit. The minimum sample volume shall be 1.7 cubic meters. The

probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160 ± 14 °C. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 run.

b. Dioxin/Furan emission limit expressed as the total mass of tetra- through octa- chlorinated dibenzo-p-dioxins and dibenzofurans. The facility may perform less frequent testing for dioxin/furan emissions, as allowed by 40 CFR 60.38b(b) with prior notice to the Department, if the facility's dioxin/furan emissions do not exceed 15 ng/dscm corrected to 7% O_2 or less for all MWC units.
c. Mercury and HCl stack tests upstream and downstream of the control device(s) will be conducted when determining compliance with the percent control alternative limits.
d. Testing for compliance with the fluoride emission limits shall be demonstrated during the initial compliance test and every five years thereafter.

Unit load levels (steam flow) and particulate control device inlet temperatures may be varied for purposes of testing in accordance with NSPS, 40 CFR 60 Subpart Cb. See Specific Conditions **A.2.**, **A.23., A.25.** and **A.35.** of this permit. [Permit No. 0570127-002-AC/PSD-FL-086(A)]

Recordkeeping and Reporting Requirements

A.38. Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority: [Rule 62-213.440, F.A.C.]

Report	Reporting Deadline	Related Condition(s)
Segregated Solid Waste Record Keeping	30-day period	**A.40.**
Charging Rate Monitoring	Average daily basis	**A.27.**

A.39. Other Reporting Requirements. 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 NSPS, 40 CFR 60, Subpart Cb - Standards of Performance for Large Municipal Waste Combustors. See Appendices RR: Facility-Wide Reporting Requirements. [Rule 62-204.800(9)(b)7.b and 62-213.440, F.A.C.]

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

A.40. 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.e.** and **A.4.f.** Each segregated load of non-MSW materials, that is subject to the percentage weight limitations of specific condition **A.4.e.** and **A.4.f.**, 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.

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.

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. [0570127-002-AC/PSD-FL-086(A)]

A.41. Other Excess Emissions Reports. In the case of excess emissions resulting from malfunctions*, the owner or operator shall notify the Department's Southwest District office (DEPSWD) and the Hillsborough

County Environmental Protection Commission (HCEPC) in accordance with Section 62-4.130, F.A.C. The DEPSWD and the HCEPC shall be notified within one working day of: the nature, extent, and duration of the excess emission; and the action taken to correct the problem. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the DEPSWD or HCEPC.

*Malfunction is defined at Rule 62-210.200(179) to mean any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.
[Rule 62-210.700(6), F.A.C. and Permit No. 0570127-002-AC/PSD-FL-086(A)]

A.42. Emission Compliance Stack Test Reports.
(a) A test report indicating the results of the required compliance tests shall be filed with the DEPSWD and the HCEPC as soon as practical, but no later than 45 days after the last sampling run is completed.
(b) The test report shall provide sufficient detail on the tested emissions unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8), F.A.C.
[Rule 62-297.310(8), F.A.C., NSPS, 40 CFR 60 Subpart Cb and 0570127-002-AC/PSD-FL-086(A)]

Operating Practices, Training and Certification

A.43. Operating Practices. The owner or operator shall comply with the operating practices as set forth in 40 CFR 60.53b(b) and (c). [Rule 62-204.800(9)(b), F.A.C., NSPS, 40 CFR 60 Subpart Cb, and, 0570127-002-AC/PSD-FL-086(A)]

A.44. Operator Training and Certification. The owner or operator shall comply with the operator training and certification requirements of 40 CFR 60.54b. Compliance with these requirements shall be conducted according to the schedule specified in NSPS, 40 CFR 60 Subpart Cb. [Rule 62-204.800(9)(b), F.A.C., NSPS, 40 CFR 60 Subpart Cb, and, 0570127-002-AC/PSD-FL-086(A)]

Other Requirements.

A.45. Name Plate. The combustor boilers shall have a metal name plate affixed in a conspicuous place on the shell showing manufacturer, model number, type waste, and rated capacity. [Rule 62-204.800(9)(b)5., F.A.C., NSPS, 40 CFR 60 Subpart Cb, and 0570127-002-AC/PSD-FL-086(A)]

A.46. 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 type of required permits, licenses, or certifications. [Permit No. 0570127-002-AC/PSD-FL-086(A)]

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

EU No.	Brief Description
100	Ash Building and Handling System

The emissions unit consists of bottom ash and fly ash handling systems, including a scrubber for the ash building and the scalper building. This emission unit serves the four municipal waste combustors. Fugitive ash emissions are controlled by enclosing the ash transfer and storage system. The scrubber has a stack that is 50 feet high with an exit diameter of 1.3 feet. The unit is designed to process up to 280 tons of ash per day. This permit does not limit the daily ash throughput at this emissions unit. Because the potential uncontrolled PM emissions are below the major source threshold, the CAM rule does not apply to the ash transfer and storage system's scrubber.

{Permitting note: This emissions unit is regulated under 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(9), F.A.C.; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); and Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT).}

Essential Potential to Emit (PTE) Parameters

B.1. 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.]

B.2. Hours of Operation. This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C., Permit No. 0570127-002-AC/PSD-FL-086(A)]

Control Technology

B.3. Ash Handling Requirements. The potential for dust generation by ash handling activities will 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. [0570127-003-AC/PSD-FL-086(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 time for Specific Condition **B.5.** are based on the specified averaging time of the applicable test method.

B.4. Visible Emissions (VE). As determined by the stack tests, visible emissions from the ash conveyor systems, transfer points, buildings, or enclosures of ash conveying systems shall not occur more than 5 percent of the time during the observation period, except during times of maintenance or repair of these systems. [0570127-002-AC/PSD-FL-086(A)]

Excess Emissions

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

B.5. Excess Emissions Allowed. Excess emissions resulting from 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.6. 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.7. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
22	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in NSPS, 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800(9), F.A.C. No other methods may be used unless prior written approval is received from the Department.
[62-297.401, F.A.C. and 0570127-002-AC/PSD-FL-086(A)]

B.8. 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.9. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), the ash handling facilities shall be tested to demonstrate compliance with the emissions standards for VE. [Rule 62-297.310(7), F.A.C. and 0570127-002-AC/PSD-FL-086(A)]

B.10. Fugitive Ash. The procedures specified in paragraphs (a - c) shall be used for determining compliance with the fugitive ash emission limit under 40 CFR 60.55b.

a. The EPA Reference Method 22 shall be used for determining compliance with the fugitive ash emission limit under NSPS, 40 CFR 60, Subpart Cb. The minimum observation time will be three hours, and will include periods when ash is being transferred from the MWC unit to the storage area, and when ash is being loaded for disposal.
b. The average duration of visible emissions per hour shall be calculated from the three 1-hour observations. The average shall be used to determine compliance with NSPS, 40 CFR 60, Subpart Cb.
c. Following the date that the initial performance test for fugitive ash emissions is completed or is required to be completed under Sec. 60.8 for an affected facility, the owner or operator shall conduct a performance test for fugitive ash emissions on an annual basis (no more than 12 calendar months following the previous performance test). [NSPS, 40 CFR 60, Subpart Cb.]

B.11. Operating Rate During Testing. Compliance testing shall be conducted with the emissions unit operation at capacity, which is defined as testing with all four combustion units operating and producing ash. [Rule 62-213.440, F.A.C.]

Recordkeeping and Reporting Requirements

B.12. Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for reporting requirements. [Rule 62-213.440, F.A.C.]

Federal Requirements

B.13. In addition to the above requirements, this emissions unit shall also comply with the applicable requirements contained in the following Appendices: Appendix NSPS A: 40 CFR 60, Subpart A - General Provisions; Appendix Cb: 40 CFR 60, Subpart Cb - Standards of Performance for Large Municipal Waste Combustors. [Rule 62-213.440, F.A.C., and NSPS, 40 CFR 60, Subpart Cb.]

Subsection C. The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
101	Two Pebble Lime Storage Silos

Pebble lime used in the SDA for each MWC is stored in two silos which exhaust through a common baghouse during silo loading operations. The emission unit has the potential to emit PM less than 100 tons per year. Since the potential uncontrolled PM emissions are below the major source threshold, the CAM rule does not apply to the lime storage silos baghouses.

{Permitting notes: This emissions unit is regulated under Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); Rule 62-212.400(6), F.A.C., and; Best Available Control Technology (BACT).}

Essential Potential to Emit (PTE) Parameters

C.1. 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.]

C.2. Hours of Operation. This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C. and 0570127-002-AC/PSD-FL-086(A)]

Control Technology

C.3. Fabric Filter Baghouse. The two pebble lime storage silos are equipped with a common baghouse for the control of particulate matter emissions. The baghouse is designed, constructed and operated to control particulate matter so as not to exceed a maximum emission rate of 0.015 grains per dry standard cubic foot (gr/dscf) for each silo. [0570127-002-AC/PSD-FL-086(A)]

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 **C.4.** and **C.5.** are based on the specified averaging time of the applicable test method.

C.4. Visible Emissions (VE). As determined by the EPA Method 9, VE shall not exceed five (5) percent opacity. [0570127-002-AC/PSD-FL-086(A)]

C.5. Particulate Matter (PM). As determined by EPA method 5 or 5B, the emission limit for PM contained in the gases discharged to the atmosphere from each silo shall not exceed 0.015 grains per dry standard cubic foot (gr/dscf) during filling operations of the lime storage silo. [0570127-002-AC/PSD-FL-086(A)]

Excess Emissions

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

C.6. 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. and 0570127-002-AC/PSD-FL-086(A)]

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.]

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.}

C.8. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
5 or 5B	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

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800(9), F.A.C. No other methods may be used unless prior written approval is received from the Department. [62-297.401, F.A.C. and 0570127-002-AC/PSD-FL-086(A)]

C.9. Common Testing Requirements. Unless otherwise specified, tests (when 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.]

C.10. 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 VE. [Rule 62-297.310(7), F.A.C. and 0570127-002-AC/PSD-FL-086(A)]

C.11. Operating Rate During Testing. Testing of emissions shall be conducted while pneumatically loading the silos at the normal operational loading rate. [Rule 62-213.440, F.A.C.]

C.12. Lime Storage Silos PM Compliance Requirements. The PM compliance test requirements are waived for the lime storage silos and an alternate standard of 5 percent opacity shall apply. The VE tests shall be performed for each silo during filling operations using EPA Method 9. A visible emission reading greater than 5 percent opacity does not create a presumption that the PM emission limit (in gr/dscf) is being violated, but may require the owner or operator to perform a PM stack test. Permanent stack testing facilities are not required for the lime silos. The owner or operator may install temporary stack sampling facilities to conduct such a test, if required.
[0570127-002-AC/PSD-FL-086(A)]

Recordkeeping and Reporting Requirements

C.13. Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

Subsection D. Emissions Unit -102

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

EU No.	Brief Description
102	Two Activated Carbon Storage Silos

This emissions unit consists of two activated carbon storage silos with a separate discharge for each municipal waste combustor unit. The activated carbon is utilized for the control of Hg and D/F. Emissions from the silos are controlled by baghouses. The silos continuously feed activated carbon to the SDA units. Each of the activated carbon storage silos exhaust through a separate baghouse during silo loading operations. Since the potential uncontrolled PM emissions are below the major source threshold, the CAM rule does not apply to the activated carbon storage silo vent filters.

{Permitting note: This emissions unit is regulated under Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); and Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT).}

Essential Potential to Emit (PTE) Parameters

D.1. 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. and 0570127-002-AC/PSD-FL-086(A)]

D.2. Hours of Operation. This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C. and 0570127-002-AC/PSD-FL-086(A)]

Control Technology

D.3. Fabric Filter Baghouses. The two activated carbon storage silos are equipped with two baghouses, one for each silo for the control of PM emissions. The baghouses are designed, constructed and operated to control PM so as not to exceed a maximum emission rate of 0.015 gr/dscf for each silo. [0570127-002-AC/PSD-FL-086(A)]

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 **D.4.** and **D.5.** are based on the specified averaging time of the applicable test method.

D.4. Visible Emissions. As determined by the EPA Method 9, VE shall not exceed five (5) percent opacity. [0570127-002-AC/PSD-FL-086(A)]

D.5. Particulate Matter (PM). As determined by EPA method 5 or 5B, the emission limit for PM contained in the gases discharged to the atmosphere from each silo shall not exceed 0.015 gr/dscf. [0570127-002-AC/PSD-FL-086(A)]

Excess Emissions

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

D.6. Excess Emissions Allowed. Excess emissions resulting from 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.]

D.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.]

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.}

D.8. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
5 or 5B	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

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800(9), F.A.C. No other methods may be used unless prior written approval is received from the Department. [62-297.401, F.A.C. and 0570127-002-AC/PSD-FL-086(A)]

D.9. 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.]

D.10. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), each baghouse shall be tested to demonstrate compliance with the emissions standards for VE. [Rule 62-297.310(7), F.A.C. and 0570127-002-AC/PSD-FL-086(A)]

D.11. Operating Rate During Testing. Testing of emissions shall be conducted while pneumatically loading the silos at the normal operational loading rate. [Requested by applicant in letter dated January 3, 2001]

D.12. Carbon Storage Silos PM Compliance Requirements. The PM compliance test requirements are waived for the carbon storage silos and an alternate standard of 5 percent opacity shall apply. The VE tests shall be performed for each silo during filling operations using EPA Method 9. A VE reading greater than 5 percent opacity does not create a presumption that the PM emission limit (in gr/dscf) is being violated, but may require the owner or operator to perform a PM stack test. Permanent stack testing facilities are not required for the carbon silos. The owner or operator may install temporary stack sampling facilities to conduct such a test, if required. [0570127-002-AC/PSD-FL-086(A)]

Recordkeeping and Reporting Requirements

D.13. Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

SECTION IV. APPENDICES.

The Following Appendices Are Enforceable Part of This Permit:

Appendix A, Glossary.
Appendix BW, Biomedical Waste Definitions.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix NSPS, 40 CFR 60 Subpart A, General Provisions (version dated 2/5/2010).
Appendix NSPS, 40 CFR 60 Subpart Cb (version dated 03/24/2010).
Appendix NSPS, 40 CFR 60 Subpart Eb (version dated 04/21/2008).
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.