Miami-Dade County Department of Solid Waste Management
Miami-Dade County Resource Recovery Facility
Facility ID No. 0250348
Miami-Dade County

Title V Air Operation Permit Renewal

Permit No. 0250348-010-AV

(Renewal of Title V Air Operation Permit No. 0250348-007-AV)

PROPOSED PERMIT

Permitting Authority:

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

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

Telephone: (850) 717-9000
Fax: (850) 717-9001

Compliance Authority:

Department of Environmental Protection
Southeast District
400 North Congress Avenue
West Palm Beach, Florida 33401
Telephone: (561) 681-6600
Fax: (561) 681-6755

Title V Air Operation Permit Renewal

Permit No. 0250348-010-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. 3

II. Facility-wide Conditions. 4

III. Emissions Units and Conditions.
- A. Emission Units 001, 002, 003 and 004, RDF Spreader Stoker Combustor & Auxiliary Burners. 7
- B. Emission Units 006 and 007, MSW to RDF Processing and Bulky Waste to Biomass Processing. 17
- C. Emission Unit 008, Ash Building and Handling System. 19
- D. Emission Unit 009, Two Lime Storage Silos. 21
- E. Emission Unit 010, Activated Carbon Storage Silos. 22
- F. Emission Units 011 and 012, Emergency Diesel Engines. 23

IV. Appendices. 25
- Appendix A - Glossary.
- Appendix BW – Biomedical Waste Definitions.
- Appendix CAM - Compliance Assurance Monitoring Plan.
- Appendix I - List of Insignificant Emissions Units and/or Activities.
- Appendix NSPS, Subpart A - General Provisions.
- Appendix NSPS, Subpart Cb - Emission Guidelines for Large Municipal Waste Combustors.
- Appendix NSPS, Subpart Eb - Standards of Performance for Large Municipal Waste Combustors.
- Appendix NSPS, Subpart IIII - Stationary Compression Ignition Internal Combustion Engines.
- Appendix RR - Facility-wide Reporting Requirements.
- Appendix TR - Facility-wide Testing Requirements.
- Appendix TV - Title V General Conditions.
- Appendix VE Reduction Plan - Consent Order OGC File No. 05-1530.

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.

PROPOSED PERMIT

Florida Department of Environmental Protection

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

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

PERMITTEE:
Miami-Dade County Dept. of Solid Waste Mgmt
Operated by Covanta Dade Renewable Energy Ltd
6990 Northwest 97th Avenue
Miami, Florida 33178

Permit No. 0250348-010-AV
Miami-Dade County Resource Recovery Facility
Facility ID No. 0250348
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 Miami-Dade County Resource Recovery Facility is in Miami-Dade at located at 6990 Northwest 97th Avenue in Miami, Florida. UTM Coordinates: Zone 17, 564.30 kilometers (km) East, and 2857.40 km North; Latitude: 25° 50' 06" North and Longitude: 80° 21' 30" 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: DATE, 2012
Renewal Application Due Date: Exp. DATE -225, 20xx
Expiration Date: 5 years + Eff. DATE, 2012

Executed in Tallahassee, Florida

PROPOSED PERMIT

JFK/aal/yha

PROPOSED PERMIT

Subsection A. Facility Description.

The Miami-Dade County Resources Recovery Facility consists of four municipal waste combustors (MWC) and ancillary equipment. Each unit has a maximum continuous rating of 180,000 pounds per hour (lb/hour) of steam with a range of 584 to 782 tons/day at a heat content of 4,500 to 5,500 British thermal units per pound (Btu/lb) of refuse derived fuel (RDF) required to achieve the rating. The four units combined produce sufficient steam to generate approximately 77 megawatts (MW) of electricity.

The facility began operation in 1982 and by 1990 had been converted to the present RDF design. Emissions from each unit are controlled by: a spray dryer absorber (SDA) for acid gases such as sulfur dioxide (SO_2) and hydrogen chloride (HCl); a fabric filter (baghouse) for particulate matter (PM); a selective non-catalytic reduction (SNCR) system for nitrogen oxides (NO_X); and an activated carbon injector system for mercury (Hg), other metal hazardous air pollutants (HAP) and dioxin/furans. The facility is equipped with continuous emission monitoring system (CEMS) for carbon monoxide (CO), SO_2 and NO_X and a continuous opacity monitoring system (COMS) for visible emissions (VE).

The biomass fuel preparation system processes up to 400,000 tons/year of the organic bulky solid waste into biomass, which is either transported off-site for use in biomass-fired cogeneration units or combusted on-site. Biomass, in the energy production industry, refers to living and recently living biological material which can be used as fuel or for industrial production.

The facility also has an ash building and handling system, lime storage silos and activated carbon storage silos. Units 1 and 2 share a common stack, each with its own flue. The same stack/flue configuration is used for Units 3 and 4. Odors are minimized by keeping the truck access doors closed during non-use; and a negative pressure is maintained on the garbage tipping floor, and the air is collected as combustion air for the MWC.

Miscellaneous unregulated/insignificant emissions units and/or activities are included.

Subsection B. Summary of Emissions Units.

EU No.	Emission Unit Description
Regulated Emissions Units	
001	RDF Spreader Stoker Combustor & Auxiliary Burners - Unit No.1
002	RDF Spreader Stoker Combustor & Auxiliary Burners - Unit No. 2
003	RDF Spreader Stoker Combustor & Auxiliary Burners- Unit No. 3
004	RDF Spreader Stoker Combustor & Auxiliary Burners - Unit No. 4
006	MSW to RDF Processing Facility with Baghouses - Unit No. 6
007	Bulky Waste to Biomass Processing Facility with Baghouses - Unit No. 7
008	Ash Building and Handling System/Ash Storage Silo with Baghouse - Unit No. 8
009	Two Lime Storage Silos each with a Baghouse - Unit No. 9
010	Activated Carbon or Comparable Reactant Storage Silos each with a Baghouse - Unit No. 10
011	Emergency Diesel Engine - Unit No. 11
012	Emergency Diesel Engine - Unit No. 12

PROPOSED PERMIT

Subsection C. Applicable Regulations.

Based on the Title V Air Operation Renewal application received October 14, 2011, 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	
NSPS, 40 CFR 60, Subpart A - General Provisions	001 - 004, and 006 - 010
NSPS, 40 CFR 60, Subpar Cb - Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors	
NESHAP, 40 CFR 63, Subpart A - General Provisions	011 and 012
NESHAP, 40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)	
State Rule Citations	
Rule 62-204, F.A.C., Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference.	001 - 004, and 006 - 010
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).	
Chapter 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 Waste-to-Energy Facilities	
Rule 62-297, F.A.C., Stationary Sources - Emissions Monitoring.	

PROPOSED PERMIT

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 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 PM 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 PM at this facility include:

a. Facility's Processing of Biomass:

(1) Windows and doors of the enclosed space shall be kept closed except when needed to minimize fugitive dust.

(2) Conveyor systems, screens, handling shredded wood fines and dust shall be covered or enclosed.

(3) Shredded wood conveyor systems will have baghouse pickup points at the transfer points and these shall be used during operations.

(4) Wind breaks shall be installed around the shredded wood load-out area.

(5) Floors in the enclosed area shall be cleaned periodically.

(6) Loading areas for shredded wood shall be cleaned or wetted as needed to minimize fugitive dust.

(7) Trucks transporting shredded wood shall be covered.

(8) Vegetation shall be planted on-site.

b. Other Precautions to be taken at the Miami-Dade County Complex:

(1) Employment of proper dust-control techniques to prevent fugitive dust emissions during construction activities such as demolition of buildings, grading roads, construction, and land clearing (including construction to be experienced during facility improvements to air pollution control equipment to meet the Emission Guideline requirements of 40 CFR 60, Subpart Cb).

PROPOSED PERMIT

(2) Application of asphalt, water, oil, chemicals, or other dust suppressants to roads, yards, open stock piles, and similar emissions units/activities as necessary to minimize fugitive dust (except for within the ash landfill).

(3) Confining abrasive blasting where possible.

(4) Operation of the landfill in accordance with all applicable portions of Chapter 62-7, F.A.C.

(5) All roads, except for roads within the ash landfill, shall be adequately paved to control visible emissions.

(6) Maximum 15 MPH speed limit signs shall be posted to minimize dust generation.

(7) Residue from grates, grate siftings, and ash from the combustor/boiler and fabric filter hoppers during normal operations shall be discharged into the ash handling and silo system to minimize fugitive dust.

(8) The ash/residue in the bottom ash building shall be kept sufficiently moist to minimize fugitive dust during storage and handling operations.

(9) Transport vehicles for ash shall be covered.

(10) Bottom ash and fly ash shall be wetted as necessary to minimize fugitive dust prior to the use of conveyor systems.

Furthermore, doors and the building and roof openings can be closed to minimize fugitive dust. Ventilation fans can be turned off to reduce unconfined emissions, provided that safely and operations are not compromised. Water spry can also be used unconfined PM.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in Title V air operation permit renewal application received October 14, 2011]

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. State and County Compliance Authority. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Southeast District office and the Miami-Dade County Department of Environmental Resources Management (DERM; also, known as the "designee") office at the following addresses:

Department of Environmental Protection
Southeast District
400 North Congress Avenue
West Palm Beach, Florida 33401
Telephone: 561/681-6600
Fax: 561/681-6755

Miami-Dade County Dept. of Env. Resources Mgmt.
Air Section
33 Southwest Second Avenue, Suite 900
Miami, Florida 33130-1540
Telephone: 305/372-6925
Fax: 305/372-6954

PROPOSED PERMIT

FW10. 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 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, Virginia 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]

PROPOSED PERMIT

Subsection A. RDF Spreader Stoker Combustor & Aux. Burners Units 1, 2, 3 and 4

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

EU No.	Emission Unit Description
001	RDF Spreader Stoker Combustor and Auxiliary Burners - Unit No.1
002	RDF Spreader Stoker Combustor and Auxiliary Burners - Unit No.2
003	RDF Spreader Stoker Combustor and Auxiliary Burners - Unit No.3
004	RDF Spreader Stoker Combustor and Auxiliary Burners - Unit No.4

Design Waste Throughput Rating: The four emissions Units are identical RDF spreader stoker combustors with Zurn attributes designated as Units 1, 2, 3 and 4, respectively. RDF is burned in suspension and on a grate with a primary and secondary air system to provide air in varying proportions to promote the proper combustion. The design waste throughput rating of each municipal waste combustor is 648 tons/day when burning waste with a higher heating value (HHV) of 5,600 Btu/lb. Actual waste throughput will vary depending upon the HHV of the waste actually burned and the steam production requirements as described and limited below.
Design Heat Input Rating of the Auxiliary Burners: Auxiliary burners associated with each RDF combustor are permitted to fire propane and natural gas at a maximum heat input of 80 million Btu (MMBtu)/hour for startup, shutdown and malfunction, and at other times when necessary and consistent with good combustion practices.

{Permitting Note: These emissions units are regulated under Rule 62-204.800(9)(b), F.A.C., which establishes emissions standards and requirements based on 40 CFR 60, Subpart Cb, Emission Guidelines and Compliance Times for Large Municipal Waste Combustors that are Constructed on or before September 20, 1994 (revised as of July 1, 2009)" (Subpart Cb). The auxiliary burners are subject to 40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.}

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum operating rate measured as steam flow shall not exceed 180,000 pounds of steam per hour based on 4-hour block averaged measurements per emission unit.

[Rules 62-4.160(2), 62-204.800, 62-210.200 (Potential to Emit (PTE)); and Permit No. 0250348-011-AC (PSD-FL-006G)]

A.2. Maximum Demonstrated MWC Unit Load. Unit load means the steam load of the MWC measured as specified in 40 CFR 60.58b(I)(6). Each unit shall not operate at a load level greater than 110% of the unit's "maximum demonstrated unit load." Maximum demonstrated MWC unit load means the highest 4-hour arithmetic average MWC unit load achieved during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for MWC organics**.** Higher loads are allowed for testing purposes as specified in 40 CFR 60.53b(b). [Rule 62-204.800(9), F.A.C.]

A.3. Flue Gas Temperature. The temperature of the flue gas, measured at the PM control device inlet, shall not exceed 17 degrees Celsius (63°F) above the 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.

a. During the annual dioxin/furan performance test and the two weeks preceding the annual dioxin/furan performance test, no PM control device temperature limitations are applicable.

b. The PM control device temperature limits may be waived in accordance with permission granted by the Administrator or delegated State regulatory authority for the purpose of evaluating system performance,

PROPOSED PERMIT

testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

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

A.4. Auxiliary Burners. Auxiliary burners for each emissions unit shall be fired only with propane or natural gas fuel during startups, shutdowns and malfunctions, and at other times when necessary and consistent with good combustion practices. [Permit No. 0250348-011-AC (PSD-FL-006G)]

A.5. Hours of Operation. Each RDF spreader stoker combustor is allowed to operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C. and Permit No. 0250348-011-AC (PSD-FL-006G)]

A.6. Methods of Operation - Fuels.

a. *Authorized Fuels.*

(1) Fuels allowed to be burned in each MWC include RDF, with natural gas or propane as auxiliary startup and stabilization fuels. Other fuels or wastes, not specifically listed herein, shall not be burned without prior written approval from the Department. Fuels or wastes specifically authorized herein do not require prior Department approval before combustion.

(2) The primary fuel for Units 1 through 4 is RDF, including the items and materials that fit within the definition of MSW contained in 40 CFR 60.51b or Section 403.706(5), F.S.

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) through (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) used oil, except for what is generated on-site;
(i) explosives; or,
(j) 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); or,

(b) Segregated loads of biological waste.

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

(1) Well mixed with MSW in the refuse pit; or

(2) Alternately charged with MSW in the hopper.

[Rules 62-4.070(3) and 62-213.440, F.A.C.]

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:

PROPOSED PERMIT

(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 as a daily average on a calendar monthly basis.

f. *Biomass Fuel*. Subject to the conditions and limitations contained in this permit, biomass fuel may be burned at this facility (including biomass from offsite sources). The total quantity of biomass material received as segregated load from off-site sources and burned in the combustion units shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined as a daily average on a calendar monthly basis. Biomass from on-site production shall be subject to the limitations that apply to bulky solid waste to biomass processing and/or RDF as contained in this permit. See Section III, Subsection B, of this permit.

g. *Other Solid Waste/Segregated Loads*. 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 as a daily average on a calendar monthly basis.

(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 (3) or (4), above and are functionally or commercially useless (expired, rejected or spent); or

PROPOSED PERMIT

(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 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.

h. *Other Fuels or Wastes*. Other fuels or wastes hall not be burned in the emissions units without prior specific written approval from the Division of Air Resource Management of the Department of EPA.

[Rules 62-4.160(2), 62-210.200, and 62-213.440(1), F.A.C.; and Permit No. 0250348-011-AC (PSD-FL-006G)]

Control Technology

A.7. Air Pollution Control Equipment. For each unit, the permittee constructed and shall operate and maintain the following equipment:

a. *Fabric filters.* Each unit is equipped with a particulate control fabric filters designed, constructed and operated for the purpose of removing PM, including ash and the reagent/reaction products from of the SDA and carbon injection systems. These fabric filters must be equipped with pressure drop monitoring equipment.

b. *Spray dryer absorbers.* Each unit is equipped with a SDA (scrubber) system including lime storage silo, slaking equipment and lime slurry injection equipment for the purpose of removing SO_2.

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.

d. *Selective Non Catalytic Reduction System.* Each unit is equipped with a selective non-catalytic reduction system designed, constructed and operated to remove NO_X emissions.

[Rule 62-210.650, F.A.C.; and Permit No. 0250348-011-AC (PSD-FL-006G)]

A.8. Circumvention. The permittee shall not circumvent the air pollution control equipment or allow the emissions of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]

PROPOSED PERMIT

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 below are based on the specified averaging time of the applicable test method for each MWC unit.

A.9. Visible Emissions. As determined by the COMS, the maximum emission limit for opacity shall not exceed 10% (6-minute block average) the COMS data may be used as evidence to determine compliance with the opacity standard. Consent Order OGC File No. 05-1530 mandates that the permittee comply with all requirements of the Visible Emissions Reduction Plan that identifies the preventative measures the facility will take to minimize opacity excursions. This Plan is included in the Title V air operation permit renewal as an Appendix. [Rule 62-212.400(BACT) and 62-204.800(9)(b), F.A.C.; and Consent Order OGC File No. 05-1530]

A.10. Particulate Matter. As determined by stack tests, the maximum emission limit for PM shall not exceed 25 milligrams per dry standard cubic meter (mg/dscm) at 7% oxygen (O_2). [Rules 62-204.800(9) and 62-212.400(BACT), F.A.C.; and Permit No. 0250348-011-AC (PSD-FL-006G)]

A.11. Sulfur Dioxide. As determined by the CEMS, the maximum emission limit for SO_2 shall not exceed 29 parts per million by volume (ppmvd) at 7% O_2. (dry basis), based on a 24-hour daily geometric mean. [Rules 62-204.800(9) and 62-212.400(BACT), F.A.C.; and Permit No. 0250348-011-AC (PSD-FL-006G)]

A.12. Nitrogen Oxides. As determined by the CEMS, the maximum emission limit for NO_X shall not exceed 250 ppmvd at 7% O_2, on a dry basis, based on a 24-hour daily arithmetic average. [Rule 62-204.800(9), F.A.C.; and Permit No. 0250348-011-AC (PSD-FL-006G)]

A.13. Carbon Monoxide. As determined by the CEMS, the maximum emission limit for CO shall not exceed 250 ppmvd at 7% O_2, on dry basis, based on 24-hour block average. [Rule 62-204.800(9), F.A.C.; and Permit No. 0250348-011-AC (PSD-FL-006G)]

A.14. Dioxins/Furan. As determined by stack tests, the maximum emission limit for dioxins/furan shall not exceed 30 nanograms (ng)/dscm) total mass, at 7% O_2. [Rule 62-204.800(9), F.A.C.; and Permit No. 0250348-011-AC (PSD-FL-006G)]

A.15. Hydrogen Chloride. As determined by stack tests, the emission limit for HCl shall not exceed 25 ppmvd, at 7% O_2, on dry basis, or 5 % of the potential hydrogen chloride emission concentration (95% reduction by weight or volume), whichever is less stringent. [Permit No. 0250348-011-AC (PSD-FL-006G)]

A.16. Lead. As determined by stack tests, the maximum emission limit for lead shall not exceed 400 micrograms (µg)/dscm, at 7% O_2. [Rule 62-204.800(9)(b), F.A.C.]

A.17. Mercury. As determined by stack tests, the maximum emission limit for Hg shall not exceed 50 µg/dscm at 7% O_2. [Rule 62-204.800(9), F.A.C.; and Permit No. 0250348-011-AC (PSD-FL-006G)]

A.18. Cadmium. As determined by stack tests, the maximum emission limit for cadmium shall not exceed 35 µg /dscm, at 7 % O_2.dry basis. [Rule 62-204.800(9)(b), F.A.C.]

Excess Emissions

The following conditions are based upon the Department's Excess Emissions provisions at Rule 62-210.700, F.A.C., which cannot vary any requirement of an NSPS or NESHAP provision. The applicable requirements of Rule 62-204.800(9)(b), F.A.C.-MWC: 40 CFR 60, Subpart Cb are included in the applicable facility Title V Operation Permit.

A.19. Excess Emissions Allowed.

a. 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. In no case

PROPOSED PERMIT

shall the duration of excess emissions exceed three hours in any 24 hour period unless specifically authorized by the Department for longer duration.

b. For the purpose of compliance with the CO emission limits in Condition A.13. if a loss of boiler water level control (e.g., boiler waterwall tube failure) or a loss of combustion air control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence.

c. During a loss of boiler water level control or loss of combustion air control malfunction period, a diluent cap of 14% O_2 or 5% for CO_2 may be used in the emissions calculations for SO_2 and NO_X.

[Permit No. 0250348-011-AC (PSD-FL-006G)]

A.20. Allowed Excess Emissions resulting from Warm-up, Startup, Shutdown, or Malfunction.

a. Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided 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 a 24-hour period unless specifically authorized by the Department for longer duration. For the purposes of this specific condition, a malfunction means 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. As referenced below, the Department specifically authorizes a longer duration.

(1) The emission limitations for this unit shall apply at all times, except during periods of warm-up, startup, shutdown, or malfunctions, provided that the duration of excess emissions during startup, shutdown, or malfunction does not exceed three hours in a 24-hour period.

(2) The startup and warm-up periods are defined to be consistent with the applicable federal new source performance standards.

(3) The shutdown period shall be defined as to commence with the cessation of charging municipal waste to the boiler and ending when steam flow decreases to 70,000 lbs/hour and 13.5% flue gas O_2, as programmed into the Data Acquisition System (DAS). (That is, when the unit's steam flow is less than 70,000 lbs/hour and the flue gas oxygen is greater than 13.5%, the DAS receives the 'unit off line' signal.)

(4) The exclusion of CEMS data for purposes of allowed excess emissions and demonstrating compliance with an emissions standard shall be based on a one-hour block average period.

b. A warm-up period is defined to be consistent with the applicable federal new source performance standards. The emission limitations for this unit shall apply at all times, except during periods of warm-up (but only when firing natural gas or propane exclusively), startup, shutdown, or malfunctions, during which the duration of excess emissions shall not exceed three hours in a 24-hour period. During all warm-ups, startups, shutdowns, and malfunctions, the owner/operator shall use best operational practices to minimize air pollutant emissions.

c. The commencement of startup is programmed into the DAS as a steam flow of 70,000 lbs/hour and 13.5% flue gas O_2. (That is, when the unit's steam flow is greater than or equal to 70,000 lbs/hour and the flue gas O_2 is less than or equal to 13.5%, the DAS receives the 'unit on line' signal, and the unit is considered no longer in warm-up.)

d. The shutdown commences with the cessation of charging municipal waste to the boiler and ends when steam flow decreases to 70,000 lbs/hour and 13.5% flue gas oxygen, as programmed into the DAS. (That is, when the unit's steam flow is less than 70,000 lbs/hour and the flue gas oxygen is greater than 13.5%, the DAS receives the 'unit off line' signal.)

[Rule 62-210.700(1), F.A.C; and Permit No. 0250348-011-AC (PSD-FL-006G)]

PROPOSED PERMIT

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.; and, Permit No. 0250348-011-AC]

Continuous Assurance Monitoring (CAM)

A.22. CAM Plan. These emissions units are subject to the CAM requirements contained in the attached Appendix CAM. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [Rules 62-204.800 and 62-213.440(1), F.A.C. and Permit No. 0250348-011-AC (PSD-FL-006G)]

Continuous Monitoring Requirements

A.23. CEMS: The permittee shall calibrate, maintain and operate the following CEMS:

a. SO_2 and NO_X - CEMS in accordance with 40 CFR 60, Appendix B, PS- 2 and Appendix F and for the purpose of demonstrating continuous compliance with the respective emission standards in Specific Conditions **A.11.** and **A.12.**

b. CO - CEMS in accordance with 40 CFR 60, Appendix B, PS-4A and Appendix F and for the purpose of demonstrating continuous compliance with the CO emission standard in Specific Condition **A.13.**

c. O_2 or CO_2 diluent CEMS in accordance with 40 CFR 60, Appendix B, PS-3 and Appendix F and for the purpose of correcting the emission standards in Specific Conditions **A.10.** through **A.18.** to the stated O_2 content.

d. A COMS in accordance with 40 CFR 60, Appendix B, PS-1 and for the purpose of demonstrating compliance with the 10% opacity standard in Specific Condition **A.9.**

[Permit No. 0250348-011-AC (PSD-FL-006G)]

A.24. Continuous Steam Flow Monitoring System. The owner or operator shall calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; measure steam flow in lb/hour on a continuous basis; and record the output of the monitor. Steam flow shall be calculated in 4-hour block arithmetic averages. Additionally:

a. The method included in the "American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1-1964 (R1991)" Section 4 shall be used for calculating the steam flow. The recommendations in "American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th edition (1971)," Chapter 4 shall be followed for design, construction, installation, calibration, and use of nozzles and orifices.

b. All signal conversion elements associated with steam measurements must be calibrated according to the manufacturer's instructions at least once per year.

[Permit No. 0250348-011-AC (PSD-FL-006G)]

A.25. Inlet Temperature to PM Control Device (Baghouse). The owner or operator shall calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each PM control device utilized. Temperature shall be calculated in 4-hour block arithmetic averages. [Rule 62-213.440, F.A.C.]

PROPOSED PERMIT

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.}

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

Method	Description of Method and Comments
1-4	Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content. Methods shall be performed as necessary to support other methods.
3, 3A or 3B	Any of these methods shall be used to determine O_2 or carbon dioxide (CO_2) diluent concentration when conducting relative accuracy test audits (RATA) in conjunction with diluent O_2 or CO_2-CEMS installed, calibrated, maintained and operated in accordance with 40 CFR 60, Appendix B, PS-3 and Appendix F.
5	Method for Determining PM Emissions
6, 6A or 6C	Any of these methods shall be used to determine SO_2 concentrations when conducting RATA in conjunction with SO_2-CEMS installed, maintained and operated in accordance with 40 CFR 60, Appendix B, PS-2 and Appendix F.
7, 7A, 7B, 7C, 7D or 7E	Any of these methods shall be used to determine NO_X Emissions when conducting RATA in conjunction with NO_X-CEMS installed, calibrated, maintained and operated in accordance with 40 CFR 60, Appendix B, PS-2 and Appendix F.
9	Visual Determination of the Opacity of Emissions (VE) from Stationary Sources
10, 10A or 10B	Any of these methods shall be used to determine CO emissions when conducting RATA in conjunction with CO-CEMS installed, calibrated, maintained and operated in accordance with 40 CFR 60, Appendix B, PS-4A and Appendix F.
23	Determination of Dioxin/Furan Emissions From Stationary Sources.
26 or 26A	Determination of Hydrogen Chloride Emissions From Stationary Sources.
29	Determination of Metals Emissions from Stationary Sources (Hg, cadmium and lead).

The above methods are described in Appendix A and B of 40 CFR 60 and are 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. [Rules 62-204.800 and 62-297.100, F.A.C.; Appendix A and B of 40 CFR 60; and Permit No. 0250348-011-AC (PSD-FL-006G)]

A.26. 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.27. Test Requirements. The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Tests shall be conducted in accordance with the applicable requirements specified in Appendix TR (Testing Requirements) of this permit.
[Rule 62-297.310, F.A.C.]

A.28. Annual Compliance Tests Required. The owner or operator shall conduct a performance test for PM, opacity, cadmium, Hg, lead, HCl, and dioxins/furan emissions on a calendar year basis (no less than 9 calendar

PROPOSED PERMIT

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).

A.29. 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% of the maximum operation rate allowed by the permit, which is equal to 198,000 lb/hour of steam based on 4-hour block averaged measurements. 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% 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. [Permit No. 0250348-011-AC (PSD-FL-006G)]

Recordkeeping and Reporting Requirements

A.30. Segregated Solid Waste Record Keeping. The following records shall be made and kept to demonstrate compliance with the segregated non-MSW percentage limitations of this subsection**:**

a. Each segregated load of non-MSW materials, subject to the percentage weight limitations of Specific Condition **A.6**. of this subsection**,** which is received for processing, shall be documented as to waste description and weight. The weight of all waste materials received for processing shall be measured and recorded using the facility truck scale.

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 days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of tires shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 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 days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of segregated non-MSW materials subject to the 5% restriction shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% limitation.

[Rules 62-4.070(1) and (3), and Permit No. 0250348-011-AC (PSD-FL-006G)]

A.31. Stack Test Reports. The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Compliance Authority on the results of each such test. The required test report shall be filed with the Compliance Authority as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Compliance Authority to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide information as specified in Rule 62-297.310(8)(c), F.A.C.
[Permit No. 0250348-011-AC (PSD-FL-006G)]

A.32. Excess Emissions Reporting.

a. *Malfunction Notification.* If emissions in excess of a standard (subject to the specified averaging period) occur due to malfunction, the permittee shall notify the Compliance Authority within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident.

b. *State Implementation Plan (SIP) Quarterly Permit Limits Excess Emissions Report*. Within 30 days following the end of each calendar-quarter, the permittee shall submit a report to the Compliance Authority summarizing periods of SO_2, CO, and NO_X emissions as well as opacity in excess of the permit emission

PROPOSED PERMIT

standards following the NSPS format in 40 CFR 60.7(c), Subpart A. Periods of startup, shutdown and malfunction, shall be monitored, recorded and reported as excess emissions when emission levels exceed the standards specified in this permit. In addition, the report shall summarize the CEMS and COMS availability for the previous quarter.

[Permit No. 0250348-011-AC (PSD-FL-006G)]

A.33. 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. [Permit No. 0250348-011-AC (PSD-FL-006G)]

A.34. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

A.35. Actual NOx Emissions Reporting: This permit is based on a preliminary analysis that switching from daily/weekly waste throughput limitations coupled with a 24-hour (180,000 lb/hour) steam flow limit to a 4-hour (198,000 lb/hour) steam flow limit will not result in an emission increase of 40 tons/year or more of NO_X.

a. The permittee shall monitor the emissions of NO_X emitted by the four MWC; and, using the CEMS information available, calculate and maintain a record of the annual emissions, in tons/year on a calendar year basis, for a period of 5 years following resumption of regular operations after final issuance of this permit. Emissions shall be computed in accordance with the provisions in Rule 62-210.370, F.A.C., which are provided in Appendix C of this permit.

b. The permittee shall report to the Department within 60 days after the end of each calendar year during the 5-year period setting out the unit's annual emissions during the calendar year that preceded submission of the report. The report shall contain the following:

(1) The name, address and telephone number of the owner or operator of the major stationary source;

(2) The annual emissions as calculated pursuant to the provisions of 62-210.370, F.A.C., which are provided in Appendix C of this permit;

(3) If the emissions are greater than 1,296 tons/year, an explanation as to why there a difference from baseline actual emissions (1,257 tons/year);

(4) Information related to the use of the SNCR to abate possible increase due to operation at higher steam flow rates; and

(5) Any other information that the owner or operator wishes to include in the report.

c. The information required to be documented and maintained pursuant to subparagraphs 62-212.300(1)(e)1 and 2, F.A.C., shall be submitted to the Department, which shall make it available for review to the general public.

[Application; and Rules 62-212.300(1)(e) and 62-210.370, F.A.C.]

PROPOSED PERMIT

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

EU No.	Emission Unit Description
006	MSW to RDF Processing Facility with Baghouses - Unit No. 6
007	Bulky Waste to Biomass Processing Facility with Baghouses - Unit No. 7

Emissions Unit 6 is a processing activity of receiving, handling and converting of MSW into RDF and saleable extractables, such as metals and glass.

Emissions Unit 7 is an existing bulky waste processing system that was modified into a biomass fuel preparation system and is designed to process up to 400,000 tons/year of the bulky waste into biomass, which will be transported off-site for use in biomass-fired cogeneration units or combusted on-site.

{Permitting note(s): Emissions Units 6 and 7 are each minor emissions units regulated under Rule 62-210.300, F.A.C., Permits Required; and Permit No. 0250348-011-AC (PSD-FL-006G)]}

Since the estimated potential uncontrolled PM emissions are below the major source threshold, the CAM rule does not apply to the biomass processing facility silo's baghouse.

Essential Potential to Emit (PTE) Parameters

B.1. Hours of Operation. Each emissions unit may operate continuously, i.e., 8,760 hours/year. [Rules 62-213.440, 62-210.200(PTE), 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 below are based on the specified averaging time of the applicable test method.

B.2. Visible Emissions.

a. *MSW to RDF Processing Facility*. Visible emissions from each baghouse exhaust shall not exceed 10% opacity, 6-minute average.

b. *Bulky Waste to Biomass Processing Facility*. Visible emissions from each baghouse exhaust shall not exceed 5% opacity. [Rule 62-297.620(4), F.A.C.; and Permit No. 0250348-011-AC (PSD-FL-006G)]

Excess Emissions

B.3. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

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

Monitoring of Operations

B.5. Determination of Process Variables

a. *Required Equipment*. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables,

PROPOSED PERMIT

such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

b. *Accuracy of Equipment*. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), 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.6. 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.7. Visible Emissions. The test method for visible emissions for all emissions units shall be EPA Method 9, in accordance with Rule 62-297.401, F.A.C., and 40 CFR 60, Appendix A. [Rule 62-297.401, F.A.C.; and Permit No. 0250348-011-AC (PSD-FL-006G)]

B.8. 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% 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% 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, F.A.C.]

PROPOSED PERMIT

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

EU No.	Emission Unit Description
008	Ash Building and Handling System/Ash Storage Silo with Baghouse – Unit No. 8

Fly ash collected by the fabric filters is conveyed to the fly ash silo, fly ash conditioner and to the ash transfer building, where it is combined with bottom ash from the boilers. The combined ash is then conveyed to the ash storage building. The ash handling system is enclosed to decrease the potential for fugitive emissions. The bottom ash is quenched and wetted before being conveyed to the ash transfer building. The fly ash is wetted in the fly ash conditioner prior to being conveyed to the ash transfer building.

{Permitting Note: These emissions units are regulated under Rule 62-204.800(9)(b), F.A.C., which adopts emissions standards and requirements from 40 CFR 60, Subpart Cb, Emission Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994. Subpart Cb, cross references conditions (applicable requirements) that are contained in the NSPS 40 CFR 60, Subpart Eb. The fugitive particulate matter control requirements for the ash handling activities are specified in 40 CFR 60.55b.}

Since the estimated potential uncontrolled PM emissions are below the major source threshold, the CAM rule does not apply to the ash storage silo's baghouse.

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

C.1. Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

C.2. Ash Silo.

a. PM emissions from the ash silo baghouse shall not exceed 0.01 grains/dry standard cubic foot (gr/dscf).

b. VE shall not exceed 5% opacity; since the emissions unit's potential PM emissions are less than 100 tons/year and are equipped with a baghouse control system. As long as the VE do not exceed 5 percent opacity, compliance is assumed for the PM limitations established in paragraph (a) above.

*{Permitting Notes: If the Department has reason to believe that the PM weight emissions standard in paragraph (a) above is not being met, it shall require that compliance be demonstrated by the test method specified in Specific Condition **C.9**.}*

c. Compliance testing of the ash silo (baghouse) shall be conducted within 90 days of completion of construction and initial operation; and, annually thereafter.

[Rule 62-297.620(4), F.A.C.; and Permit No. 0250348-011-AC (PSD-FL-006G)]

C.3. Fugitive Ash Emissions:

a. On and after the date on which the initial performance test is completed or is required to be completed under 40 CFR 60.8 of Subpart A , no owner or operator of an affected facility shall cause to be discharged to the atmosphere VE of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5% 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).

PROPOSED PERMIT

b. The emission limit specified in paragraph (a) does not cover VE discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified in paragraph a. does cover VE discharged to the atmosphere from buildings or enclosures of ash conveying systems.

c. The provisions of paragraph a. do not apply during maintenance and repair of ash conveying systems.

[40 CFR 60.36b and 40 CFR 60.55b; and Permit No. 0250348-011-AC (PSD-FL-006G)]

C.4. 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 handling and silo 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. [Rule 62-4.070(3), F.A.C.]

Excess Emissions

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

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

C.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.}

C.7. 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.]

C.8. Fugitive Ash. EPA Reference Method 22 shall be used for determining compliance with the fugitive ash emission limit under 40 CFR 60.55b. [Rule 62-204.800(9), F.A.C.]

C.9. PM Emissions. The test methods for particulate emissions shall be EPA Method 5 incorporated by reference in Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A. [Rules 62-213.440 and 62-297.401, F.A.C.]

C.10. VE. EPA Method 9 shall be used to determine opacity compliance pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A. [Rule 62-297.401, F.A.C.]

PROPOSED PERMIT

Subsection D. This section addresses the following emissions unit:

EU No.	Emission Unit Description
009	Two Lime Storage Silos each with a Baghouse - Unit No. 9

Lime used in the spray dryer absorbers for the MWC is stored in two silos. Emissions from each silo are controlled by a baghouse.

{Permitting note: Emissions Unit 9 is a minor emissions unit regulated under Rule 62-210.300, F.A.C., Permits Required.}

Since the estimated potential uncontrolled PM emissions are below the major source threshold, the CAM rule does not apply to the lime storage silos' baghouses.

Essential Potential to Emit Parameters

D.1. Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

D.2. Visible Emissions. VE shall not exceed 5% opacity. [Permit No. 0250348-011-AC (PSD-FL-006G)]

Excess Emissions

D.3. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

D.4. 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

D.5. Visible Emissions. EPA Method 9 shall be used to determine opacity compliance pursuant to Rule 62-297.401, F.A.C., and 40 CFR 60, Appendix A. The emissions unit is to be operating (i.e., receiving or discharging) during any compliance test. [Rules 62-4.070(3), 62-213.440, and 62-297.401, F.A.C.; and Permit No. 0250348-011-AC (PSD-FL-006G)]

PROPOSED PERMIT

Subsection E. This section addresses the following emissions unit:

EU No.	Emission Unit Description
010	Activated Carbon (or Comparable Reactant) Storage Silos - Unit 10

Activated carbon or comparable reactant used in the injection system for the municipal waste combustors is stored in two silos. The activated carbon (or comparable reactant) will be utilized for the control of mercury and dioxin/furans. Emissions from each silo are controlled by a baghouse.

{Permitting note(s): Emissions Unit 10 is a minor emissions unit regulated under Rule 62-210.300, F.A.C., Permits Required; and, Rule 62-212.400, F.A.C.]}

Since the estimated potential uncontrolled PM emissions are below the major source threshold, the CAM rule does not apply to the activated carbon storage silos' baghouses.

Essential Potential to Emit (PTE) Parameters

E.1. Hours of Operation: This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

E.2. Particulate Matter. PM emissions shall not exceed 0.01 gr/dscf, front-half catch.

E.3. Visible emissions. VE shall not exceed 5% opacity since each emissions unit's potential PM emissions are less than 100 tons/year and is equipped with a baghouse control system. As long as the VE do not exceed 5% opacity, compliance is assumed for the PM limitations established in **E.2.**

*{Permitting Note: If the Department has reason to believe that the PM weight emissions standard in paragraph (a) above is not being met, it shall require that compliance be demonstrated by the test method specified in Specific Condition **E.6.**}*

[Rule 62-297.620(4), F.A.C.; and Permit No. 0250348-011-AC (PSD-FL-006G)]

Excess Emissions

E.4. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

E.5. 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

E.6. Particulate Matter The test methods for PM shall be EPA Method 5 pursuant to Rule 62-297.401, F.A.C., and 40 CFR 60, Appendix A. [Rule 62-297.401, F.A.C.]

E.7. Visible Emissions EPA Method 9 shall be used to determine opacity compliance pursuant to Rule 62-297.401, F.A.C., and 40 CFR 60, Appendix A. Compliance testing of the carbon silo loading operation shall be conducted within 90 days of completion of construction and initial operation; and, annually thereafter. [Rule 62-297.401, F.A.C.]

PROPOSED PERMIT

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

EU No.	Engines Brief Description
011	Emergency Diesel Engine
012	Emergency Diesel Engine

This section is comprised of two compression ignition (CI) type engines. Air pollutant emissions from these engines are uncontrolled.

This emissions unit is a diesel-fired reciprocating internal combustion engine (RICE) and use low sulfur diesel fuel only.

The following engines are currently on site.

EU No.	Manufacturer Name/Model No.	Brake Horsepower (hp)	Date of Construction	Type of Engine	Displacement liters/cylinder (l/c)
EU 011	Kohler Diesel Set with John Deer Model No. 60RDZJ71	97	2011	Emergency	3.0
EU 012	Kohler Diesel Set with John Deer Model No. 60REOZJC	97	2011	Emergency	3.0

{Permitting Note: These emissions units, compression ignition (CI) engines, are regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE adopted in Rule 62.204.800(11)(b), F.A.C. and 40 CFR 60, Subpart IIII, NSPS. These RICE are not used for fire pumps. This permit section addresses "new" stationary CI RICE greater than or equal to 50 HP, with a displacement less than 10 liters per cylinder, that are located at a major source of HAP and that have been modified, reconstructed or commenced construction on or after 6/12/2006 and have a post-2007 model year.}

New Source Performance Standards

F.1. NSPS Subpart A: As identified above in Table C-1, both of the engines are subject to the applicable regulations in Subpart A (General Provisions) of 40 CFR 60. See Appendix NSPS, Subpart A.

F.2. NSPS Subpart IIII: As identified above in Table C-1, both of the engines are subject the applicable regulations in Subpart IIII (Stationary Compression Ignition Internal Combustion Engines) of 40 CFR 60. See Appendix NSPS, Subpart IIII.

National Emission Standards for HAP

F.3. NESHAP Subpart ZZZZ: All engines identified in Table C-1 are new units as defined by NESAHP Subpart ZZZZ. Pursuant to 40 CFR63.6590, these units comply with NESHAP, Subpart ZZZZ by complying with NSPS, Subpart IIII.

Essential Potential to Emit (PTE) Parameters

F.4. Allowable Fuel. The Stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

a. *Sulfur Content:* The sulfur content shall not exceed 15 ppm (0.0015% weight) for non-road fuel.

b. *Cetane and Aromatic:* The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.

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

PROPOSED PERMIT

F.5. Hours of Operation

(1) *Emergency Situations*. There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 60.4211(e)]

(2) *Maintenance and Testing*. Each engine is authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours/year. [40 CFR 60.4211(e)]

(3) *Other Situations*. Each engine cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4219]

Emission Limitations and Operating Requirements

F.6. Non-Methane Hydrocarbons (NMHC) and NO_X. NMOG and NO_X emissions shall not exceed a Family Emission Limit of 4.7 gram/kilowatt-hour (gr/KW-hour). [40 CFR 60.4205(b) & 40 CFR 89.112 Table 2]

F.7. Carbon Monoxide. CO emissions shall not exceed 5.0 gr/KW-hour. [40 CFR 60.4205(b)]

F.8. Particulate Matter. PM emissions shall not exceed 0.4 gr/KW-hour. [40 CFR 60.4205(b)]

Monitoring of Operations

F.9. Hour Meter. The owner or operator must install a non-resettable hour meter if one is not already installed. [40 CFR 60.4209(a)]

Compliance

F.10. Compliance Requirements. Owner or operator must demonstrate compliance according to engine certification, have purchased an engine certified according to 40 CFR Part 89, for the same model year and maximum engine power. [40 CFR 60.4211(b)]

Recordkeeping Requirements

F.11. Required Records. Owner or operator must keep records of the operation of the engine in emergency and non-emergency services that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214]

General Provisions

F.12. The owner or operator must comply with the general provisions in 40 CFR 60 Subpart A. [40 CFR 60.4218]

PROPOSED PERMIT

SECTION IV. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A - Glossary.
Appendix BW - Biomedical Waste Definitions.
Appendix CAM - Compliance Assurance Monitoring Plan.
Appendix I - List of Insignificant Emissions Units and/or Activities.
Appendix NSPS, Subpart A - General Provisions.
Appendix NSPS, Subpart Cb - Emission Guidelines for Large Municipal Waste Combustors.
Appendix NSPS, Subpart Eb - Standards of Performance for Large Municipal Waste Combustors.
Appendix NSPS, Subpart IIII - Stationary Compression Ignition Internal Combustion Engines.
Appendix RR - Facility-wide Reporting Requirements.
Appendix TR - Facility-wide Testing Requirements.
Appendix TV - Title V General Conditions.
Appendix VE Reduction Plan - Consent Order OGC File No. 05-1530.

PROPOSED PERMIT