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PERMITTEE

Miami-Dade County
6990 Northwest 97th Avenue
Miami, Florida 33178

Air Permit No. 0250348-011-AC (PSD-FL-006G)
Miami-Dade County Resource Recovery Facility
Updated Air Construction Permit

Authorized Representative:
Mr. Thomas C. Eriksen, Facility Manager

PROJECT

The Miami-Dade County Resource recovery facility is classified as a municipal solid waste facility categorized under Standard Industrial Classification No. 4953. The facility is located in Miami-Dade County at 6990 Northwest 97th Avenue, Miami, Florida 33178-6430. UTM Coordinates are Zone 17, 564.30 kilometers (km) East, and 2857.40 km North; Latitude: 25° 50' 06" North and Longitude: 80° 21' 30" West.

This final air construction Permit No. 0250348-011-AC (PSD-FL-006G) for Miami-Dade County Resource Recovery Facility replaces the previous air construction Permit No. PSD-FL-006D issued on July 21, 2000, and subsequent modifications thereto. This permit replaces the pollutant emission limits and test methods established in the original or subsequent air construction permits with the more stringent emission limits and test methods contained in Department Rule 62-204.800(9)(b), Florida Administrative Code (F.A.C.), applicable to existing facilities with a municipal waste combustor unit capacity greater than 250 tons/day of municipal solid waste, and for which construction, reconstruction, or modification was commenced on or before September 20, 1994.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the F.A.C. The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. This project is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. However, certain emission limits established through previous PSD permits will be replaced by more stringent conditions.

Executed in Tallahassee, Florida

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CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit with Appendices) was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on the date indicated below to the following persons.

Mr. Thomas C. Eriksen, Facility Manager, Covanta Dade: teriksen@covantaenergy.com
Ms. Kathleen Woods-Richardson, Director PW&WM, Miami-Dade County: dswm@miamidade.gov
Mr. Philip Cobb, P.E., Golder Associates Inc.: pcobb@golder.com
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Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

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FACILITY DESCRIPTION

The Miami-Dade County Resources Recovery Facility consists of: four refuse derived fuel (RDF) municipal waste combustors (MWC); a municipal solid waste (MSW) separation and RDF preparation system; a bulky waste separation and biomass fuel preparation system; and ancillary equipment. The facility is owned by Miami-Dade County and operated by Covanta Dade Renewable Energy. Each unit has a maximum continuous rating of 180,000 pounds per hour (lb/hour) of steam. Each unit requires a range of approximately 584 to 782 tons/day at a heat content range of approximately 4,500 to 5,500 British thermal units per pound (Btu/lb) of RDF to achieve the maximum continuous rating. The four units combined produce sufficient steam to generate approximately 77 megawatts (MW) of electricity.

The facility began operation in 1982. 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 systems (CEMS) for carbon monoxide (CO), SO_2 and NO_X and a continuous opacity monitoring system (COMS) for visible emissions (VE).

The MSW to RDF system also includes recovery of extractable, saleable materials such as metals and glass. The bulky materials to biomass system processes up to 400,000 tons/year of the organic bulky solid waste into biomass, which is either combusted on-site or transported off-site for use at biomass-fueled facilities.

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 and each has its own flue within the stack. Units 3 and 4 share a common stack and each has its own flue within the stack. 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. The County operates a landfill at an adjacent location which is permitted separately.

This permit affects or includes the emissions units listed below that were constructed under the authority of Permit No. PSD-FL-006 and Site Certification No. PA77-08, issued in 1978, Permit No. PSD-FL-006A issued December 16, 1994 and Permit No. PSD-FL-006D issued July 21, 2000. The latter two permits substantially modified the facility.

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

PROJECT DESCRIPTION

This project updates the Permit No. PSD-FL-006D issued on July 21, 2000, or subsequent modifications thereto for the following items at the existing Miami-Dade County Resource Recovery Facility:

- Replace certain pollutant emission standards contained in previous air construction permits with more stringent standards that are consistent with Rule 62-204.800(9)(b), F.A.C., Municipal Waste Combustors (the MWC rule);
- Delete the emission standards and testing requirements for pollutants emitted at very low levels and that are now classified as HAP and not regulated by the PSD rules;

- Delete emission standards and testing requirements for PSD-pollutants demonstrated to have been emitted at rates much less than the respective emission standard and the applicable significant emission rate;
- Update test methods, reporting and monitoring requirements with those of the MWC Rule;
- Remove restrictions to propane and natural gas used during warm-up events; and
- Replace the waste, heat input and 24-hour steam load limitations with a maximum 4-hour block steam production limit of 198,000 lb/hour consistent with the MWC rule.

FACILITY REGULATORY CLASSIFICATION

- The existing facility is a major source of HAP.
- The existing facility does not operate units subject to the Title IV, Acid Rain provisions of the Clean Air Act (CAA).
- The existing facility is a Title V major source as defined in Chapter 62-210, F.A.C. and as regulated in Chapter 62-213, F.A.C.
- The existing facility is a PSD major stationary source as defined in Chapter 62-210, F.A.C. and as regulated in Rule 62-212.400, F.A.C. – PSD.
- The existing facility is subject to the New Source Performance Standards (NSPS) pursuant to Section 111, CAA and the National Emissions Standards for Hazardous Air Pollutants (NESHAP) pursuant to Section 112, CAA.
- The existing facility is subject to Rule 62-204.800, Federal Regulations Adopted by Reference, including Rule 62-204.800(9), F.A.C., Title 40, Code of Federal Regulations, Part 60 (40 CFR 60), Emission Guidelines and Compliance Times.
- The existing facility is subject to the Florida Power Plant Siting Act at Sections 403.501-518, F.S. and as implemented in Chapter 62-17, Part I, F.A.C.

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1. Permitting Authority: The Permitting Authority for this project is the Office of Permitting and Compliance in the Division of Air Resource Management of the Department. The mailing address for the Office of Permitting and Compliance is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Southeast District office at: 400 North Congress Avenue West Palm Beach, Florida 33401. Telephone: (561) 681-6600; Fax: (561) 681-6755.
3. Appendices: The following Appendices are attached as a part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); Appendix C (Common Conditions); Appendix D (Common Testing Requirements); and Appendix E (Final BACT Determinations).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time.

   [Rule 62-4.080, F.A.C.]
6. Modifications: No emissions unit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Source Obligation:
   a. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.
   b. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

   [Rule 62-212.400(12), F.A.C.]
8. Silo Loading Operations and Baghouses:
   a. There shall be no visible emissions during the lime silo loading operations (i.e., less than 5 percent (%) opacity).
   b. Emissions from the ash silo baghouses, ash conditioning agent silo baghouses, and mercury reactant silo shall be controlled by baghouses designed to achieve 0.01 grains/dry standard cubic foot (gr/dscf) of particulate emissions (PM) and shall not exceed visible emissions of 5% opacity.
   c. Visible emission from any other baghouse exhaust shall not exceed 10% opacity (6-minute average).

   [Permit Nos. PSD-FL-006A and PSD-FL-006D]

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

This section of the permit addresses the following emissions units:

EU No.	Emissions 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 design waste throughput rating of each municipal waste combustor is 648 tons/day. Actual waste throughput will vary depending upon the higher heating value (HHV) of the waste actually burned and the steam production requirements as described and limited below.

Design Heat Input Rating of the Auxiliary Burners: The design heat input rating of each natural gas and propane-fueled auxiliary burner is 80 million Btu/hour (MMBtu/hour).

{Permitting Note: In accordance with Rule 62-212.400(PSD), F.A.C., the above emission units are subject to Best Available Control Technology (BACT) for the following pollutants: SO_2, PM and opacity. The final updated BACT determinations are presented in Appendix E of this permit.}

PREVIOUS APPLICABLE REQUIREMENTS

1. Previous Air Construction Permits: This final air construction Permit No. 0250348-011-AC (PSD-FL-006G) replaces Permit No. PSD-FL-006D issued on July 21, 2000, and subsequent modifications thereto. [Application; Rules 62-4.080; 62-210.300; 62-212.300 and 62-212.400, F.A.C.]

APPLICABLE STANDARDS AND REGULATIONS

2. Best Available Control Technology Determinations: Determinations of the BACT were originally established in Permit No. PSD-FL-006A, updated in Permit No. PSD-FL-006D and replaced in this permit with updated BACT limits for SO_2, PM and visible emissions (opacity). See Appendix E for the revised BACT determinations.

   *{The initial testing requirements of the emission standards, including the BACT determinations, detailed in **Specific Condition 12** of this subsection have already been satisfied.}*

   [Application; Rule 62-210.200 (BACT), F.A.C.; Consistency with Rule 62-204.800(9), F.A.C.]

3. Municipal Waste Combustor Rule: These units are subject to Rule 62-204.800(9), F.A.C., Municipal Waste Combustors, applicable to existing facilities with a municipal waste combustor unit capacity greater than 250 tons per day of municipal solid waste, and for which construction, reconstruction, or modification was commenced on or before September 20, 1994.
   [Rule 62-204.800(9), F.A.C.; 40 CFR 62.2355 (Dec. 30, 2010, as amended Feb. 9, 2012)]

4. NSPS Requirements: The auxiliary burners are subject to NSPS, 40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.
   [Rule 62-204.800(8)(d) and 62-204.800(8)(b)4., F.A.C.; and NSPS, 40 CFR 60, Subparts A and Dc]

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EQUIPMENT

5. Municipal Waste Combustors: The permittee constructed and now operates and maintains four RDF Spreader Stoker Combustion Units including tipping floor, refuse bunkers, feed equipment, grates, auxiliary burners, furnaces, boilers, two steam turbine-electrical generators, air pollution control equipment, storage equipment, garbage and trash receiving and processing (including a metals recovery system) and two stacks. [Application; Permit No. PSD-FL-006D; Site Certification No. PA77-08; Rules 62-4.080; 62-210.300; 62-212.300 and 62-212.400, F.A.C.; and Previous Title V Air Operation Permit Nos. 0250348-001-AV and 0250348-007-AV]

AIR POLLUTION CONTROL EQUIPMENT

6. Air Pollution Control Equipment: For each unit, the permittee constructed and shall operate and maintain the following equipment:
   a. SNCR System: A urea-based SNCR system including storage tank, pumps and injection ports to control emissions of NO_X. Operation is required only to the extent required to comply with emission standards.
   b. Spray Dryer Absorber: A spray dryer absorber system including lime storage silo, slaking equipment and lime slurry injection equipment for the purpose of removing SO_2.
   c. Carbon Injection System: A carbon injection system including storage silo for the purpose of removing Hg and MWC organics such as dioxin/furans.
   d. Fabric Filter: A fabric filter for the purpose of removing PM, including ash and the reagent/reaction products from of the spray dryer absorber and carbon injection system.

   [Application; Rule 62-212.400 (BACT), F.A.C.; Consistency with Rule 62-204(9)(b), F.A.C.; and Permit Nos. PSD-FL-006A and PSD-FL-006D]

7. 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.]

PERFORMANCE RESTRICTIONS

8. Maximum Operating Rate: The maximum operating rate measured as steam flow shall not exceed 198,000 pounds/hour of steam based on 4-hour block averaged measurements. [Application; Rules 62-210.200, F.A.C. (Definition of Potential to Emit - PTE)]

9. Auxiliary Fuel Burners: The auxiliary fuel burners shall be fueled only with natural gas or propane and used during startup, shutdown and for flame stabilization. The maximum heat input rate to the burners is 80 MMBtu/hour. [Application]

10. Hours of Operation. The hours of operation of each MWC are unrestricted (8,760 hours per year). [Rule 62-210.200, F.A.C. (Definition-PTE)]

11. Permitted Wastes and 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.

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b. Unauthorized Fuels: Subject to the limitations contained in this permit, the authorized fuels for the facility also include the other solid wastes that are not MSW, which are described in d., e. and 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 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:

(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.

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f. Biomass: 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

(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 biphynels (PCB) concentration equal or greater than 50 parts per million (ppm) shall not be burned, pursuant to the limitations of 40 CFR 761.20(e).

(8) Waste materials generated by manufacturing, industrial or agricultural activities, provided that these items or materials are substantially similar to items or materials that are found routinely in MSW, subject to prior approval of the Department.

h. Other Fuels or Wastes: Other fuels or wastes shall not be burned in the emissions units without prior specific written approval from the Division of Air Resource Management of the Department of Environmental Protection.

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

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EMISSIONS STANDARDS

12. BACT and MWC Emission Guideline Limitations and Standards: The following specific limits are established as BACT or MWC emission guidelines:

Pollutant	Emission Standard [1]	Compliance Method	Basis
PM	25 mg/dscm @ 7% O_2	Annual Stack Test	Updated BACT
SO_2	29 ppmvd @ 7% O_2 or 75% removal efficiency [2]	24 hour daily geometric mean, CEMS	Updated BACT
Visible Emissions	10% opacity	6-minute average, COMS	Updated BACT
NO_X	250 ppmvd @ 7% O_2	24-hour daily arithmetic block, CEMS	MWC Rule [3]
HCl	25 ppmvd @ 7% O_2 or 95% removal efficiency[2]	Annual Stack Test	PSD-FL-006G
Dioxin/furan	30 ng/dscm @ 7% O_2 [4]	Annual Stack Test	MWC Rule [3]
Hg	50 µg/dscm @ 7% O_2 or 85% reduction [2]	Annual Stack Test	MWC Rule [3]
CO	250 ppmvd @ 7% O_2	24-hour block geometric mean, CEMS	MWC Rule [3]

1. Emission limits in terms of: parts per million by volume, dry at 7 percent oxygen – ppmvd @ 7% O_2; milligrams per dry standard cubic meter - mg/dscm; micrograms/dscm - µg/dscm; and nanograms/dscm – ng/dscm.
2. Emission limit or removal efficiency whichever is less stringent. Percent reduction by weight or volume.
3. Rule 62-204.800(9)(b), F.A.C. updated previous MWC rules. Previous applicant enforceable limit requests are updated. Other applicable requirements of the MWC rule are included in the facility Title V air operation permit.
4. Dioxin/furan emission limit is based on total weight.

[Rule 62-212.400 (BACT) and consistency with 62-204.800(9), F.A.C.; 40 CFR 62.2355 (Dec. 30, 2010, as amended February 9, 2012); and Applicant enforceable limit requests]

TEST METHODS AND PROCEDURES

13. Annual Performance Tests: The owner or operator shall conduct annual performance tests to determine compliance with the PM, HCl, dioxin/furan, Hg and visible emissions listed in **Specific Condition 12** of this section. The annual tests shall be conducted no less than 9 calendar months and no more than 15 calendar months following the previous performance test and shall comprise five performance tests in each five-calendar-year period.
[Rule 62-297.310(7)(a)4., F.A.C. and consistency with Rule 62-204.800(9)(b), F.A.C.]

14. 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 Rule 62-297.310, F.A.C. [Rule 62-297.310, F.A.C.]

15. 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.
[Rule 62-297.310(2)(b), F.A.C.; Consistency with Rule 62-204.800(9)(b), F.A.C.]

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

EPA Methods	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, Performance Specification 3 (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.
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. (Specifically, Hg for these units)
The above methods are described in 40 CFR 60, Appendix A and are adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used without prior written approval from the Department.	

[40 CFR 60, Appendices A and B; Rules 62-297.100, 62-297.310, F.A.C. and Consistency with Rule 62-204.800(9)(b), F.A.C.]

EXCESS EMISSIONS

{Permitting Note: 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. are included in the facility Title V air operation Permit}

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

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b. For the purpose of compliance with the CO emission limits in **Specific Condition 12**, 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.

[Rule 62-210.700(1), F.A.C.; Consistency with Rule 62-204.800(9)(b), F.A.C.]

18. 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 lb/hour and 13.5% flue gas oxygen, as programmed into the Data Acquisition System (DAS). (That is, when the unit's steam flow is less than 70,000 lb/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 lb/hour and 13.5% flue gas oxygen. (That is, when the unit's steam flow is greater than or equal to 70,000 lbs/hour and the flue gas oxygen 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 lb/hour and the flue gas oxygen is greater than 13.5%, the DAS receives the 'unit off line' signal.)

[Rules 62-210.700(1) and 62-210.200(Definitions), F.A.C.; and Permit No. 0250348-006-AC (PSD-FL-006D)]

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

MONITORING REQUIREMENTS

20. CEMS: The permittee shall install, calibrate, maintain and operate the following CEMS:
    a. NO_X and SO_2-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 Condition 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 12.
    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 Condition 12 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 12.

    [Rules 62-4.070 and 62-212.400 (BACT), F.A.C.; and Consistency with Rule 62-204.800(9)(b), F.A.C.]

21. Continuous Steam Flow Monitoring System: The owner or operator shall install, 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.

[Rule 62-210.200 (Definitions-PTE), F.A.C.; and Consistency with Rule 62-204.800(9)(b), F.A.C.]

REPORTING AND RECORD KEEPING REQUIREMENTS

22. Control Equipment Monitoring Requirements: The control equipment operating, monitoring and reporting requirements are described in the applicable Title V air operation permit issued concurrently with this air construction permit as revised or renewed thereafter.
    [Rule 62-4.070(3), F.A.C.; and Consistency with Rule 62-204.800(9)(b), F.A.C.]

23. 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 11**:**
    a. Each segregated load of non-MSW materials, subject to the percentage weight limitations of Specific Condition 11 above**,** 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.

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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 to insure compliance with Specific Condition 11.e. above.

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 to insure compliance with Specific Condition 11 above.

[Application; Rule 62-4.070(1) and (3), F.A.C.]

24. 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. [Rule 62-297.310, F.A.C.]

25. 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 one 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 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.

[Rules 62-4.130 and, 62-204.800(8)(c), F.A.C.; and Consistency with Rule 62-204.800(9)(b), F.A.C.; and 40 CFR 60.7]

26. 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, F.A.C.]

27. 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.

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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 of the 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.]

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B. Waste Separation and Processing. Units 6 and 7

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

EU No.	Emissions 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
Baghouses associated with EU Nos. 006 and 007 shall be designed to reduce PM emissions to 0.01 grains per dry standard cubic foot (gr/dscf).	

APPLICABLE STANDARDS AND REGULATIONS

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

2. Visible Emissions.

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

   b. Bulky Waste to Biomass Processing Facility. Visible emissions from each baghouse exhaust shall not exceed 5% opacity.

   [Permit Nos. PSD-FL-006A and PSD-FL-006D]

EXCESS EMISSIONS

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.]

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

5. Visible Emissions. Visible emissions tests shall be conducted in accordance with EPA Method 9. [Rule 62-297.401, F.A.C.; 40 CFR 60, Appendix A]

6. 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(2) and (2)(b), F.A.C.]

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