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I. GENERAL

A. *Change in Discharge*

All discharges or emissions authorized herein shall be consistent with the terms and conditions of this certification. The discharge of any pollutant not identified in the application, or more frequent than, or at a level in excess of that authorized herein, shall constitute a violation of the certification. Any anticipated facility expansions, production increases, or process modifications which may result in new, different or increased discharges or pollutants, change in fuel, or expansion in steam generating capacity must be reported by submission of a new application.

B. *Noncompliance Notification*

1. If, for any reason, the permittee does not comply with or may be unable to comply with any limitation specified in this certification, the permittee shall notify the Southeast Florida District Manager of the Department by telephone during the working day that said noncompliance occurs and shall confirm this situation in writing within seventy-two (72) hours of becoming aware of such conditions, and shall supply the following information:

a. A description of the discharge and cause of noncompliance;
and

b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying event.

C. *Facilities Operation*

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this certification.

D. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact resulting from noncompliance with any limitation specified in this certification, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying event.

E. Right of Entry

The permittee shall allow the Secretary of the Florida Department of Environmental Protection and/or authorized representatives, upon the presentation of credentials:

1. To enter upon the permittee's premises where an effluent source is located or in which records are required to be kept under the terms and conditions of this permit; and
2. To have access to and copy any records required to be kept under the conditions of this certification; and
3. To inspect any monitoring equipment or monitoring method required in this certification and to sample any discharge or pollutants.

F. Revocation or Suspension

This certification may be suspended or revoked pursuant to Section 403.512, Florida Statutes, or for violations of any Condition of Certification.

G. Civil and Criminal Liability

1. This certification does not relieve the permittee from civil or criminal penalties for noncompliance with any conditions of this certification, applicable rules or regulations of the Department, or Chapter 403, Florida Statutes, or regulations thereunder.
2. Subject to Section 403.511, Florida Statutes, this certification shall not preclude the institution of any legal action or relieve the permittee from any responsibilities or penalties established pursuant to any other applicable State Statutes or regulations.

H. Property Rights

The issuance of this certification does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. The applicant will obtain title, lease or right of use from the State of Florida, to any sovereign submerged lands occupied by intake or discharge structures.

I. Severability

The provisions of this certification are severable, and if any provision of this certification, or the application of any provision of this certification to any circumstances, is held invalid, the application of such provision to other circumstances and the remainder of the certification shall not be affected thereby.

J. Definitions

The meaning of terms used herein shall be governed by the definitions contained in Chapter 403, Florida Statutes, and any regulation adopted pursuant thereto. In the event of any dispute over the meaning of a term used in these general or special conditions which is not defined in such statutes or regulations, such dispute shall be resolved by reference to the most relevant definitions contained in any other state or federal statute or regulation or, in the alternative by the use of the commonly accepted meaning as determined by the Department. In addition, the following shall apply:

1. "Permittee" shall mean Miami-Dade County Department of Solid Waste Management.

2. "Facility" or "Power Plant" shall mean the electric power generating plant and associated facilities to be modified or constructed on the site of the Dade County Resource Recovery Facility (DCRRF), as generally depicted in the application.

3. "Application" shall mean the Site Certification Application (SCA) for the DCRRF, as supplemented.

4. "DEP" or "Department" shall mean the Florida Department of Environmental Protection.

5. "Emergency conditions" shall mean the urgent circumstances involving potential adverse consequences to human life or property as a result of weather conditions or other calamity and necessitating new or replacement gas pipeline

transmission lines or access facilities.

6. "SFWMD" shall mean the South Florida Water Management District.

7. "ROW" shall mean the transmission line right-of-way to be selected within the certified corridor in accordance with the Conditions of Certification.

K. Review of Site Certification

The certification shall be final unless revised, revoked or suspended pursuant to law. At least every five years from the date of issuance of certification the Department shall review all monitoring data that has been submitted to it during the preceding five-year period for the purposes of determining the extent of the permittee's compliance with the conditions of this certification and the environmental impact of this facility. The Department shall submit the results of its review and recommendations to the permittee. Such review will be repeated at least every five years thereafter.

L. Modification of Conditions

The Conditions of this Certification may be modified in the following manner:

1. The permittee shall comply with rules, adopted by the Department subsequent to the issuance of the certification, which prescribe new or stricter criteria to the extent that the rules are applicable to electric power plants. Except where express variances have been granted, subsequently adopted rules which prescribe new or stricter criteria shall operate as automatic modifications to the certification.

2. The permittee may choose to operate in compliance with any rule subsequently adopted by the Department which prescribes criteria more lenient than the criteria required by the terms and conditions in the certification which are not site specific. The permittee must provide the Department with prior written notice of its intent to do so.

3. Except as provided in L.1. and 2., amendments or modifications of certification shall be governed by Section 403.516, F.S.

4. Subject to the notice requirements of 403.516(1), F.S., the certification shall be automatically modified to conform to subsequent DEP-issued amendments, modifications, or renewals of any separately issued Prevention of Significant Deterioration (PSD) permit, Title V Air Operation permit, or National Pollutant

Discharge Elimination System (NPDES) permit for the project and the conditions of such permits shall be controlling over these Conditions of Certification.

5. No term or condition of certification shall be interpreted to preclude the post-certification exercise by the permittee of whatever procedural rights it may have under Chapter 120, F.S., including those related to rule-making proceedings.

II. AIR

The construction and operation of the Resource Recovery Facility shall be in accordance with all applicable provisions of Chapters 62-204, 62-210, 62-212, 62-213, 62-296, 62-297, 62-701, and 62-702, F.A.C., Permit Number PSD-FL-006, and with Permit Number 0250348-005-AV, as may be subsequently modified.

A. Description

Each combustor unit is designed for a nominal permitted capacity of 27 tons/hour of refuse-derived fuel (RDF), or a nominal heat input of 302.4 million British thermal units per hour (MMBtu/hr) based on an average RDF heating value of 5,600 Btu/lb. The DCRRF is designed to process 3,000 tons per day (TPD), 18,000 tons per week (TPW) and 936,000 tons per year (TPY) of municipal solid waste (trash and garbage). Each turbine-generator rated power output is 38 MW (name plate capacity). Each unit is designed to operate at the manufacturer's maximum continuous rating of 180,000 pounds per hour of steam at 625 psig and 730° F. Each combustor is equipped with auxiliary burners to be fired by propane gas or natural gas at a maximum heat input of 80 million Btu/hr. Emissions from each combustor shall be controlled by a spray dryer scrubber followed by a baghouse. Mercury emissions shall be controlled by injecting activated carbon or other appropriate reagent, by implementing a waste separation program, or by a combination of these measures. This facility shall be allowed to operate continuously (8,760 hrs/yr).

B. Biomass Fuel

A biomass fuel preparation system will have the ability to process up to 400,000 tons per year (TPY) of bulky waste to biomass fuel. This biomass fuel would be exported off-site for use in biomass-fired cogeneration units.

C. Reporting

The permittee shall submit at least four copies of complete information as

to the make and model numbers of all new pollution control and continuous emissions monitoring devices and related equipment to the Bureau of Air Regulation 90 days prior to commencement of fabrication or installation. The permittee shall also submit operation and maintenance manuals and calibration procedures to the Bureau of Air Regulation at least 90 days prior to commencing operations.

D. Specific Conditions

In addition to the foregoing the Permittee shall comply with the following specific Conditions of Certification:

1. Emission Standards

a. Based on a maximum capacity of 302.4 MMBtu/hr and a heating value of 5,600 Btu/lb of RDF, per unit, the stack emissions from each unit shall not exceed any of the following limitations:

Pollutant	Emission Limits
PM	Particulate emissions from the baghouse shall not exceed 0.011 grains/dry standard ft ³ (gr/dscf), corrected to 7 percent O ₂ (dry basis), and 29.0 tons/year per unit.
PM10	Particulate emissions less than 10 micron diameter shall not exceed 0.011 gr/dscf, corrected to 7 percent O ₂ (dry basis), and 29.0 tons/year per unit.
SO ₂	Sulfur Dioxide emissions shall not exceed 29 parts per million by volume (ppmvd) corrected to 7 percent O ₂ (dry basis), or 70 percent removal efficiency, whichever is least restrictive, based on a 24-hour daily period (i.e., block; midnight to midnight) geometric mean; and 214.2 tons/year per unit.
NOx	Nitrogen Oxide emissions shall not exceed 250 ppmvd corrected to 7 percent O ₂ (dry basis) 24-hour daily arithmetic average, and 614 tons/year per unit. As specified in 40 CFR 60.33b(d)(1) a facility-wide average emission limit of 230 ppmvd, corrected to 7 percent O ₂ (dry basis) shall be applied in lieu of the per unit limit provided that the conditions of 40 CFR 60.33(d)(1) are met.
CO	Carbon Monoxide emissions shall not exceed 200 ppmvd at 7 percent O ₂ (dry basis), 24-hour daily arithmetic average; and 267.7 tons/year per unit.
VOC	Volatile Organic Compound (Hydrocarbons) emissions shall not exceed 25 ppmvd corrected to 7 percent O ₂ (dry basis) and 19.1 tons/yr per unit. The permittee must furnish to the Department evidence (i.e., test results) that this facility emits less than 100 tons per year of hydrocarbons or must obtain legally enforceable limits for the hydrocarbon emissions from this facility.
HCl	Hydrogen Chloride emissions shall not exceed 25 ppmvd corrected to 7

	percent O ₂ (dry basis), or 95 percent removal, and 57.1 tons/yr per unit.
Hg	Mercury emissions shall not exceed 70 micrograms per dry standard cubic meter (dscm) corrected to 7 percent O ₂ (dry basis) or 20 percent by weight of the mercury in the flue gas upstream of the mercury control device (80 percent reduction by weight), whichever is least restrictive, and 0.080 tons/yr per unit.
Dioxins/ Furans	Emissions of total (tetra- through octa-chlorinated) dibenzo-p dioxins and dibenzofurans shall not exceed 60 nanograms per standard cubic meter (ng/m ³) corrected to 7 percent O ₂ (dry basis), and 0.000038 ton/year per unit.
F	Fluoride emissions shall not exceed 840 µg/m ³ corrected to 7 percent O ₂ (dry basis), and 0.97 ton/yr/unit.
Cd	Cadmium emissions shall not exceed 0.015 µg/m ³ corrected to 7 percent O ₂ (dry basis), and 0.027 ton/yr per unit.
H ₂ SO ₄	Sulfuric Acid Mist emissions shall not exceed 2.1 ppmvd corrected to 7 percent O ₂ (dry basis), and 9.8 ton/year/unit.
Pb	Lead emissions shall not exceed 380 µg/m ³ corrected to 7 percent O ₂ (dry basis), and 0.44 tons/yr/unit.
Be	Beryllium emissions shall not exceed 0.46 µg/m ³ corrected to 7 percent O ₂ (dry basis), and 0.0005 ton/yr/unit.
As	Arsenic emissions shall not exceed 9.3 µg/m ³ corrected to 7 percent O ₂ (dry basis), and 0.011 ton/yr/unit.
VE	There shall be no visible emissions during the lime silo loading operations (i.e., less than 5 percent opacity).
VE	Visible emissions from the ash silo baghouses, ash conditioning agent silo baghouses, biomass fuel processing system baghouses, and mercury reactant silo baghouses shall not exceed a particulate matter limit of 0.01 grains/dscf, nor visible emissions of 5 percent opacity.
VE	Visible emissions from any other baghouse exhaust shall not exceed 10 percent opacity (six minute average).

Pursuant to Rule 62-4.080, F.A.C., 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 for any regulated pollutants and visible emissions. 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.

2. Compliance Determinations

a. Stack Testing - Methods

(1) Compliance with emission limitation standards

referenced in Specific Condition No. 1 shall be demonstrated using EPA Methods, as specified in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), Appendix A, or 40 CFR Part 61 ("National Emission Standards for Hazardous Air Pollutants"), Appendix B. No other test method shall be used unless approval from the Department has been received in writing. Any alternate sampling procedure shall be approved in accordance with Rule 62-297.620, F.A.C. A test protocol shall be submitted for approval to the Bureau of Air Regulation at least 90 days prior to testing.

EPA Method	For Determination of
1	Sample and velocity traverses for stationary sources.
2	Stack gas velocity and volumetric flow rate.
3 or 3A	Oxygen and carbon dioxide concentrations in emissions from stationary sources.
4	Moisture content in stack gases.
5	Particulate matter (PM) emissions from stationary sources.
201 or 201 A	PM ₁₀ emissions; however, if compliance with PM emission limitations are met, these tests are not required.
6C and 19*	Sulfur dioxide emissions from stationary sources.
7E and 19*	Nitrogen oxide emissions from stationary sources.
8	Determination of Sulfuric Acid Mist Emissions from Stationary Sources. Initial test.
9	Visible emission determination of opacity from stationary sources.
10*	Carbon monoxide emissions from stationary sources.
29	Lead emissions. Determination of metals emissions from stationary sources.
13A or 13B	Total Fluoride emissions from stationary sources. Initial test and prior permit renewal.
22	Visible determination of fugitive emissions from material sources and smoke emissions from flares.
23	Polychlorinated Dibenzo-Dioxins and Polychlorinated Dibenzofurans
25 or 25A	Total gaseous volatile organic compounds concentration.
26 or 26A	Hydrogen Chloride emissions from stationary sources or determination of Hydrogen Halide and Halogen emissions from stationary sources.
29	Cadmium emissions. Determination of metals emissions from stationary sources.
29	Mercury emissions. Determination of metals emissions from stationary sources.
104 or 29	Beryllium emissions. Determination of metals emissions from stationary sources..
108 or 29	Gaseous Arsenic emissions. Determination of metals emissions from stationary sources..

* For Relative Accuracy Test Audits (RATA) on 40 CFR 60, Appendix F, EPA Reference Method 19 (Section 4.3 and Section 5.4), Continuous Emissions Monitoring Systems

(CEMS) may use Methods 6C, 7E, and 10.

(2) Testing shall be conducted upstream (removal efficiency for SO₂ and HCl) and downstream (mass emissions) of the applicable control device for the following pollutants: SO₂, Hg and HCl; if compliance demonstration is based on percent removal efficiency. Soot blowers shall be operated in a mode consistent with normal cleaning requirements of the system during the compliance testing.

(3) If carbon is used to achieve the mercury limit or the dioxin/furan limit under Condition II.D.1.a. of these conditions, the rate of carbon injection, based on an 8-hour block average, used to achieve the emission limits during the most recent compliance test shall be determined according to the procedures in 40 CFR 60.58b(m). During operation the unit carbon injection feedrate must equal or exceed the level documented during the most recent compliance test as indicated in 40 CFR 60.58b(m)(2).

(4) Test results will be the average of three valid runs of at least one hour. The Department's Southeast District office and the Dade County DERM office will be notified at least 30 days in writing in advance of the compliance test(s).

(5) Testing of emissions shall be conducted with the source operating at permitted capacity in accordance with 40 CFR 60.53b(b), "Standards for Municipal Waste Combustor Operating Practices," and 40 CFR 60.38b and 60.58b, "Compliance and Performance Testing." Capacity is defined as 90-100% of the permitted capacity. If it is impracticable to test at capacity, then sources may be tested at less than capacity. In this case subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than fifteen consecutive days for purposes of additional compliance testing to regain the rated capacity in the permit, with prior notification to the Department.

b. Stack Testing - Frequency

(1) Compliance with emission standards contained in Condition No. I.D.1.a. shall be determined by conducting stack tests within 60 days after achieving the maximum production rate at which this facility will be operating, but not later than 180 days after initial startup, and annually thereafter. These tests may be staggered throughout the year with the approval of the Bureau of Air Regulation. For mercury, testing shall be performed according to Rule 62-296.416, F.A.C.

(3) For dioxin/furans emissions, testing shall be performed according to 40 CFR 58b, Compliance and Performance Testing.

(4) Pursuant to Rule 62-297.340(2), F.A.C., when the Department, after investigation, has good reason (such as complaints of increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in this permit is being violated, it may require the owner or operator of the source to conduct compliance tests which identify the nature and quantity of pollutant emissions from the source and to provide a report on the results of said test to the Department's Southeast District office and the Dade County DERM office.

(5) Compliance testing of ash silos (baghouse) and the lime silo loading operation (visible emissions test) shall be conducted within 90 days of completion of construction and initial operation, and annually thereafter.

(6) Notification requirements of 40 CFR Parts 60.7 and 61.09 shall be complied with by the owner/operator of the facility.

c. Sampling Ports

The permittee shall provide sampling ports in the air pollution control equipment inlet (control efficiency measurement), outlet duct, or stack and shall provide access to the sampling ports, in accordance with Chapter 62-297, F.A.C. Detailed drawings of the stacks showing testing facilities and sampling port locations as required by Rule 62-297.345, F.A.C., shall be submitted to the Department's Southeast District Office and the Dade County DERM office for approval at least 60 days prior to construction of the stack.

d. Temperature Standard and Monitoring

(1) Temperature Standard

The flue gas temperature standard set forth in 40 CFR 60.53b(c), incorporated by reference in Rule 62-204.800, F.A.C., shall apply. [Rule 62-296.416, F.A.C.]

(2) Temperature Monitoring

The temperature monitoring requirements set forth in 40 CFR 60.53b(l), incorporated by reference in Rule 62-204.800, F.A.C., shall apply. [Rule 62-296.416, F.A.C.]

e. Continuous Emissions Monitoring

Continuous monitors with recorders shall be installed, calibrated, maintained and operated for each unit, subject to approval by the Department, for the following:

- Carbon Monoxide
- Nitrogen Oxides
- Oxygen
- Opacity
- Sulfur Dioxide (for SO₂, one monitor shall be located upstream of the scrubber and one shall be located downstream of the baghouse when using percent removal to determine compliance with the SO₂ limits), as specified in 40 CFR 60, Appendix B.
- Total steam production (lbs/hr, pressure, and temperature)
- Power generation (MW)
- Slurry utilization
- Activated carbon or mercury reactant injection or usage rate
- Temperature of combustion zone (as determined by surrogate temperature monitoring at the boiler roof)

The monitoring devices shall meet the applicable requirements of Chapter 62-297, F.A.C.; 40 CFR 60, Appendix F; 40 CFR 60.58b a; and 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications, and 40 CFR 60.7(a)(5), "Notification Requirements". Data on monitoring equipment specifications, manufacturer, type calibration and maintenance requirements, and the proposed location of each monitor shall be provided to the Department's Southeast District office and the Dade County DERM office for review at least 90 days prior to installation.

f. Operating Procedures

(1) Operating procedures shall include good combustion practices and proper training and certification of all operators and supervisors. The good combustion practices shall meet the guidelines established in 40 CFR 60, Subpart Cb, and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained and certified in plant specific equipment (40 CFR 60.54b). A list of all such certified personnel shall be submitted to the Department's Southeast District office and the Dade County DERM office.

(2) Department staff shall be given notice of any training sessions related to operation and maintenance of the newly installed air pollution control devices.

(3) The emission standards for this facility shall apply at all times, except during periods of startup, shutdown, or malfunctions, provided that the duration of startup, shutdown, or malfunction shall not exceed 2 hours in any 24 hour

period. The startup period commences when the affected facility begins the continuous burning of RDF but does not include any warmup period when the affected facility is combusting only propane gas or natural gas. During all startups, shutdowns, and malfunctions the owner/operator shall use best operational practices to minimize air pollutant emissions.

(4) Within 90 days prior to start-up of the modified facility, the permittee shall submit to the Department's Southeast District office and the Dade County DERM office an operational procedures manual that identifies and prescribes the best operational practices that will be used during startup, shutdown, and malfunctions of this facility.

3. Operational Requirements

a. Operating Capacity

(1) Charging Rate: Each unit shall not be charged with more than 648 tons of RDF and permitted fuels per day as determined by a rolling 12 month average.

(2) Bulky Waste: DCRRF is allowed to process 400,000 TPY of bulky waste (trash) for biomass fuel preparation. This biomass fuel will be transported and combusted off-site.

(3) Processing Capacity: The DCRRF is also allowed to process 3,000 tons per day, 18,000 tons per week, and 936,000 tons per year of RDF.

(4) Hours of Operation: The DCRRF is allowed to operate continuously (8760 hours per year).

(5) Steam Flow: Each boiler pair shall not exceed an average of 180,000 pounds of steam produced per hour per unit based on a 24-hour block averaged measurement.

(6) Load Level: Unit load means the steam load of the municipal waste combustor (MWC) measured as specified in 40 CFR 60.58b(i)(6). Compliance with load level requirements shall be determined by a steam meter using ASME Power Test Code for Steam Generating Units, Power Test Code 4.1, section 4 (see 40 CFR 60.58b(i)(6)(ii) & (iii)). Each MWC unit shall not operate at a load level greater than 110 percent of the unit's maximum demonstrated load based on 4-hour block averaged measurements of steam flow. The maximum demonstrated unit load is the highest arithmetic averaged measurement of steam flow recorded for four consecutive hours during the most recent dioxin/furan performance stack test in which

compliance with the dioxin/furan emission limit was achieved. Higher loads are allowed for testing purposes as specified at 40 CFR 60.53b(b). [Rules 62-4.030(3) and 62-204.800(8), F.A.C.; 40 CFR 60.31b, 60.38b, 60.51b, 60.53b, 60.58b(i)(6), 60.58b(i)(8) and 60.58b(j)]

b. Auxiliary Burners

Auxiliary burners for each unit shall be fired by propane gas or natural gas. They shall not exceed a heat input of 80 MMBtu/hr. Natural gas or propane gas may be used as fuel during warm-up, start-up, shutdown, and malfunction periods, and at other times when necessary and consistent with good combustion practices.

c. Restriction for Type of Wastes Combusted

(1) The primary fuel for the facility is municipal solid waste (MSW) which is processed into RDF including the items and materials that fall within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), Florida Statutes (1995). No biological waste, biomedical waste, sewage sludge or hazardous wastes shall be combusted at this facility without obtaining proper modification to the site certification conditions.

(2) The facility shall not burn:

- (a) those materials that are prohibited by state or federal law;
- (b) those materials that are prohibited by these conditions;
- (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;
- (j) biological waste;

(k) bio-medical waste;

(l) Beryllium-containing waste as defined in 40 CFR 61.31(g).

(3) The fuel may be received either as a mixture or as a single-item stream (segregated load) of discarded materials. If the facility intends to use an authorized fuel that is segregated non-MSW material, the fuel shall be well mixed with MSW in the refuse pit or alternately charged with MSW in the hopper. The facility operators shall prepare and maintain records concerning the description and quantities of all segregated loads of non-MSW material which are received and used as fuel at the facility, and subject to a percentage weight limitation, below, [(5) and (6)]. For the purposes of this permit, a segregated load is defined to mean a container or truck that is almost completely or exclusively filled with a single item or homogeneous composition of waste material, as determined by visual observation.

(4) Other Solid Waste - Subject to the condition and limitations contained in the permit, the following other solid waste may be used as fuel at the facility:

(a) Confidential, proprietary or special documents (including but not limited to business records, lottery ticket, event tickets, coupons and microfilm);

(b) 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 fruits, vegetables, plants, and counterfeit consumer goods;

(c) Wood pallets, clean wood, and land clearing debris;

(d) Packaging materials and containers;

(e) Clothing, natural and synthetic fibers, fabric remnants, and similar debris, including but not limited to aprons and gloves; and,

(f) Rugs, carpets, and floor coverings, but no asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings.

(5) The permittee may combust up to 3% (by weight) of used tires along with the RDF. If the applicant wishes to combust use tires in excess of 3% (by weight), a modification to this permit will be required prior to increasing the feed

rate of the tires. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 3% by weight of the facility's total fuel. Compliance with this limitation shall be determined by using a rolling 30-day average in accordance with the specific condition II.D.4.b.(9) below.

(6) 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 the limitation shall be determined on a calendar monthly basis in accordance with specific condition II.D.4.b.(9) below.

(a) Construction and demolition debris.

(b) Oil spill debris from aquatic, coastal, estuarine or river environments. Such items or materials include but are not limited to rags, wipes, and absorbents.

(c) 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, food stuffs, nutritional supplements, returned goods and controlled substances.

(d) 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.

(e) Waste materials that:

(i) are generated in the manufacture of items in categories (c) or (d), above, and are functionally or commercially useless (expired, rejected or spent); or

(ii) 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.

(f) Waste materials that contain oil from:

(i) the routine cleanup of industrial or commercial establishments and machinery; or

(ii) spills of virgin or used petroleum products.
Such items or materials include but are not limited to rags, wipes, and absorbents.

(g) 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 limitation of 40 CFR 761.20(e).

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

(i) Biomass not sent off-site for use.

(7) Other fuels or wastes shall not be burned in the emission units without modification to these Conditions of Certification.

d. Baghouse Operations

The baghouses installed downstream of the dry lime scrubbers shall be equipped with pressure drop monitoring equipment. The baghouses shall have a maximum air to cloth ratio of 4:1.

e. Stack Height

The height at the top of the boiler exhaust stacks shall not be less than 250 feet above grade.

f. Fugitive (Unconfined) Emissions

(1) Fugitive emissions at this facility shall be adequately controlled at all times (Rule 62-296.310, F.A.C.). All roads, except roads within the ash landfill, shall be adequately paved to control visible dust. Maximum 15 MPH speed limit signs shall be posted to minimize dust generation. 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 to minimize visible dust. The ash/residue in the bottom ash building shall be kept sufficiently moist to minimize dust during storage and handling operations.

(2) In accordance with 40 CFR 60.55b, fugitive emissions from the ash conveying points shall not be observed in excess of 5% of the time for a 3-hour observation period (i.e., 9 minutes per 3-hour period) as determined by EPA Method 22. This limit does not apply to emissions inside buildings or enclosures or the emissions generated during maintenance and repair of the ash conveying systems.

(3) In accordance with Rule 62-296.310(3)(b), F.A.C., reasonable precautions during the processing of biomass may include, but shall not be limited to the following:

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

(b) Conveyor systems, screens, handling biomass fuel and dust shall be covered or enclosed.

(c) Biomass fuel conveyor systems shall have baghouse pick up points at the transfer points.

(d) Wind breaks shall be installed around the biomass fuel load out area.

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

(f) Loading areas for biomass fuel shall be cleaned or wetted as needed to minimize fugitive dust.

(g) Trucks transporting biomass fuel shall be covered.

g. Odor Control

No air pollutants that cause or contribute to objectionable odors are allowed from this facility pursuant to Rule 62-296.320(2), F.A.C. The truck access doors to the facility shall remain closed except during normal working shifts when garbage is being received near the garbage storage pit area to allow vehicle passage. To minimize odors at the facility, a negative pressure shall be maintained on the garbage tipping floor and air from within the building will be used as combustion air.

4. Miscellaneous Requirements

a. Emission Control Equipment Design Specifications

(1) The combustor's particulate control baghouse shall be designed, constructed and operated to achieve a maximum emission rate of 0.011 grains per dscf corrected to 7 percent O₂.

(2) The facility shall be equipped with dry scrubbers designed, constructed and operated to remove SO₂ at an efficiency of 75 percent by weight or to achieve an emission rate of 29 ppmvd at 7 percent O₂, 24-hour daily geometric mean, whichever is less stringent.

(3) The permittee shall submit to the department's Bureau of Air Regulation, within thirty (30) days after it becomes available, copies of technical data pertaining to the selected emissions control systems. The technical data should include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters.

(4) Carbon injection will be installed and operated to achieve the mercury limit in condition II.D.1.a.

(5) The permittee is authorized to install and operate permanently mounted gas burners, selective non-catalytic reduction (SNCR) systems, and other controls to achieve the nitrogen oxide and carbon monoxide emission limits in Condition II.D.1.a.

b. Record Keeping

The Dade County Resources Recovery Facility shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit. This file shall include but not be limited to:

- (1) The data collected from in-stack monitoring instruments,
- (2) The records on RDF input rate per unit,
- (3) The amount of propane gas and natural gas burned per day,
- (4) The results of all source tests or performance tests,
- (5) The amount of activated carbon or other reactant chemicals used for mercury control,
- (6) Calibration logs of all instruments,
- (7) Maintenance/repair logs for any work performed on equipment or instruments which are subject to this permit,
- (8) Fuel analysis data; and,

(9) MSW percentage limitations of specific condition

II.D.3.c.:

(a) Each segregated load of non-MSW materials, that is subject to the percentage weight limitation of condition II.D.3.c., which is received for processing shall be documented as to waste description and weight. The weight of all waste materials received for processing shall be measured using the facility truck scales and recorded.

(b) Each day the total weight of segregated tires received shall be computed, and the daily total shall be added to the sum of the daily totals from the previous 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 resulting 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 shall be divided by the total weight of all waste materials received in the same calendar month, and the resulting number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% limitation.

All measurements, records, and other data required to be maintained by DCRRF shall be retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These data shall be made available to the Department upon request. The Department's Southeast District Office and the Dade County DERM office shall be notified in writing at least 15 days prior to the testing of any instrument operated pursuant to these Conditions of Certification to allow witnessing by authorized personnel.

c. Reporting

(1) Two copies of the results of the emissions tests for the pollutants listed in Condition II.D.1.a. shall be submitted within forty-five days of the last sampling run to the Department's Southeast District office and the Dade County DERM office. Reports shall be in a format consistent with and shall include the information in accordance with Rule 62-297.570, F.A.C.

(2) Emissions monitoring shall be reported to the Department's Southeast District office and the Dade County DERM office on a quarterly

basis in accordance with Chapter 62-297, F.A.C., and 40 CFR, Part 60.7, as appropriate.

(3) Notice of anticipated and actual startup dates of control devices under this permit shall be submitted to the Department's Southeast District office and the Dade County DERM office.

d. Reporting of Excess Emissions and Malfunctions

(1) A malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, any other preventable upset condition, or preventable equipment breakdown shall not be considered malfunctions. (Chapter 62-210, F.A.C.)

(2) Excess emissions resulting from startup, shutdown, or malfunction of any source shall be permitted providing (a) best operation practices to minimize emissions are adhered to and (b) 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 (Rule 62-210.700(1), F.A.C.).

(3) 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.).

(4) In case of excess emissions resulting from malfunctions, the DCRRF shall notify the Department's Southeast District office and the Dade County DERM in accordance with Section 62-4.130, F.A.C.. A full written report on the malfunctions shall be submitted in a quarterly report (Rule 62-210.700(6), F.A.C.).

(5) The owner or operator shall submit excess emission reports for any calendar quarter during which there are excess emissions from the facility. If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report quarterly stating that no excess emissions occurred during the quarterly reporting period. The report shall include the following:

(a) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factors used, and the date and time of commencement and completion of each period of excess emissions [40 CFR 60.7(c)(1)].

(b) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the furnace

boiler system. The nature and cause of any malfunction (if known) and the corrective action taken or preventive measures adopted [40 CFR 60.7(c)(2)].

(c) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments [40 CFR 60.7(c)(2)].

(d) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information shall be stated in the report [40 CFR 60.7(c)(4)].

(e) The owner or operator shall maintain a file of all measurements, including continuous monitoring systems' performance evaluations; monitoring systems or monitoring device calibration; checks; adjustments and maintenance performed on these systems or devices; and all other information required by this permit recorded in a permanent form suitable for inspection [40 CFR 60.7(d)].

E. Circumvention

The owner or operator of this facility shall not build, erect, install, or use any article, machine, equipment, or process, the use of which conceals an emission which conceals an emission which would otherwise constitute a violation of an applicable standard (40 CFR 60.12).

F. Rule Requirements

This facility shall comply with all applicable provisions of Chapter 403, Florida Statutes, Chapters 62-4, 62-17, 62-204 through 62-297, F.A.C., and Rule 62-296.416 ("Waste-to-Energy Facilities"), F.A.C.; and 40 CFR 60, including 40 CFR 60, Subpart A, 40 CFR 60 Subpart Cb, and 40 CFR 60, Subpart E; and 40 CFR 61.

III. Water Discharges

Any discharges into any waters of the State during construction and operation of DCRRF shall be in accordance with all applicable provisions of Chapters 62-301 and 62-302, Florida Administrative Code. Also the permittee shall comply with the following special Conditions of Certification:

A. Industrial Wastes - If industrial wastes are discharged to waters of the state the effluent limitations of Chapter 62-660, F.A.C., shall apply.

B. Sanitary Wastes - Sanitary wastes shall be treated to achieve a minimum of 95% treatment or better prior to disposal in accordance with Chapter 62-600, F.A.C., and the requirements of Dade County DERM.

C. Landfill Leachate - Landfill leachate shall be collected and utilized or treated prior to discharge, including the requirements of Chapter 62-625, F.A.C., when applicable.

D. Water Monitoring Programs

The permittee shall monitor and report to the DEP Southeast District Office the listed parameters on the basis specified herein. The methods and procedures utilized shall receive written approval by the Department prior to use. The monitoring program may be reviewed annually by the Department, and a determination may be made as to the necessity and extent of continuation and may be modified in accordance with condition No. I.L.

1. Groundwater Monitoring

The groundwater levels shall be monitored continuously at one centrally located well as approved by the South Florida Water Management District. Chemical analyses shall be made on samples from all monitored wells identified on Figure 3-7 of the application and wells site Number 1 and site Number 2. The wells shall be monitored for the following parameters:

Cadmium (Cd)	Mercury (Hg)
Chemical Oxygen Demand (COD)	pH
Total Dissolved Solids (TDS)	Nitrate (NO ₃)
Iron (Fe)	Nitrite (NO ₂)
Copper (Cu)	Total Coliform Bacteria
Zinc (Zn)	Fecal Coliform Bacteria
Biochemical Oxygen Demand (BOD)	Lead (Pb)
Chloride (Cl)	Chromium (Cr)

Samples of the above will be withdrawn every two months from the 10-foot, 20-foot, and 30-foot levels. Samples of chlorinated hydrocarbon pesticides will be sampled every six months at the same depths.

The groundwater monitoring program shall be implemented at least one year prior to operation of Resource Recovery Facility. The chemical analyses shall be in accord with the latest edition of *Standard Methods for the Analysis of Water and Wastewater*. The data shall be submitted within 30 days of collection/analysis to the Southeast Florida District Office and the South Florida Water Management District.

2. Sanitary Waste Treatment Monitoring

Monitoring of sanitary waste treatment unit effluent shall be done in accordance with the provisions of Chapter 62-601, F.A.C.

IV. Groundwater

A. General

The use of groundwater for the resource recovery facility shall be minimized to the greatest extent practicable, but in no case shall exceed 1.85 mgd.

B. Well Criteria

The submission of well logs and test results and location, design and construction of wells to provide cooling tower makeup water shall be in accordance with applicable rules of the Department of Environmental Protection and the South Florida Water Management District. The plant well field shall be located in as close proximity as possible to the 58th Street landfill leachate plume.

V. Control Measures During Construction

A. Stormwater Runoff

During construction and plant operation, necessary measures shall be used to settle, filter, treat or absorb silt containing or pollutant laden stormwater runoff to insure against spillage or discharge of excavated material that may cause turbidity in excess of Nephelometric Turbidity Units (NTU) above background in waters of the State, nor shall the runoff contain suspended solids in excess of 50 mg/l.

Control measures may consist of sediment traps, barriers, berms and vegetation plantings. Exposed or disturbed soil shall be protected and stabilized as soon as possible to minimize silt and sediment laden runoff. The pH shall be kept within the range of 6.0 to 8.5.

B. Sanitary Wastes

Disposal of sanitary wastes from construction toilet facilities shall be in

accordance with applicable regulations of the appropriate local health agency.

C. Environmental Control Program

An environmental control program shall be established under the supervision of a qualified person to assure that all construction activities conform to good environmental practices and the applicable conditions of certification.

If unexpected harmful effects or evidence of irreversible environmental damage are detected during construction, the permittee shall notify the appropriate district office of the Department by telephone during the working day that the effect or damage occurs and shall confirm this in writing within seventy-two (72) hours of becoming aware of such conditions, and shall provide in writing an analysis of the problem and a plan to eliminate or significantly reduce the harmful effects or damage.

VI. Solid Wastes/Resource Recovery Facility

A. Solid wastes resulting from construction or operation shall be disposed of in accordance with the applicable regulations of Chapters 62-701 and 62-702, F.A.C.

B. Open burning in connection with land clearing shall be in accordance with Chapter 62-256, F.A.C. Prior to each act of burning, the Division of Forestry shall be contacted to determine if satisfactory conditions exist for burning.

C. Starting every three (3) months after certification a construction status report shall be submitted to the Southeast Florida District Office of the Department of Environmental Protection and the Dade County DERM. The report shall be a short narrative describing the progress of construction.

D. Upon completion of construction the Southeast Florida District Office will be notified in order that a preoperation inspection can be performed.

E. There shall be no discharge to surface waters of the State of Florida. Any groundwater contaminated by leachate shall be confined within the boundaries of the facility.

F. The permittee shall furnish two (2) copies (one copy to the Southeast Florida District Office of the Department and one copy to Dade County DERM) of the monthly report on the operation of the facility including volume, type and frequencies of waste being received. Reports for a month shall be submitted no later than the fifteenth (15th) day of the succeeding month. Such reports shall include results of any monitoring if required in this certification.

G. In the 80 acre landfill, no solid waste shall be placed in water at any time, nor shall any solid waste be placed within 4.2 feet of the maximum anticipated groundwater level.

H. This facility is to be operated in such a manner that the maximum level of efficiency is maintained at all times so as to cause a minimum adverse effect on the environment. This includes, but is not limited to, causing noxious or objectionable odors, contaminated storm water run-off, or ground waters.

I. A collection and treatment system for the landfill site (i.e., an impervious layer directed to a sump with treatment, an under drain with treatment or a recirculation system) shall be utilized.

J. The facility shall be constructed, as a minimum, pursuant to the design standards presented in the application.

VII. Operational Safeguards

The overall design and layout of the facilities shall be such as to minimize hazards to humans and the environment. Security control measures shall be utilized to prevent exposure of the public to hazardous conditions. The Federal Occupational Safety and Health Standards will be complied with during construction and operation.

VIII. Sanitary Wastes Disposal System

A. Septic Tank

The sanitary waste disposal system shall be designed to operate in conformance with Chapter 10D-6, FAC, and the guidelines of the Dade County Health Department and the State of Florida. If repeated failures of the drainfield system (two or more per year) indicate a potential for causing a public health hazard as determined by the Dade County Health Department or if sampling should indicate pollution of waters of the state due to excessive concentrations of coliform organisms, then the septic tank drainfield system shall be abandoned and plans for a properly designed sewage treatment plant shall be promptly submitted to the Department for approval and constructed immediately thereafter.

B. Sanitary Waste Treatment Facilities

Sanitary waste treatment facilities shall be designed in accordance with good engineering practice and in accordance with the provision of Chapters 62-600, 62-601, and 62-602, F.A.C., and the regulations of the Dade County DERM. Plans for such facilities shall be submitted to the Southeast Florida District Manager in accordance with the provisions of 62-4, F.A.C., and the Dade County DERM for the review and approval prior to construction.

C. Sewer Connection

Whenever an approved sanitary sewer is made available in a public right-of-way or easement abutting the site, the individual septic tank or any individual sewage disposal system, device or equipment shall be abandoned and the connected to the sanitary sewer within ninety (90) days of the date the sanitary sewer becomes available.

IX. Transmission Lines

The directly associated transmission lines from the steam electric generators to the existing Florida Power and Light 230KV transmission lines shall be cleared and maintained without the use of herbicides.

History

Certification issued 01/09/78; signed by Governor Askew
Modified 03/03/94; signed by Secretary Wetherell
Modified 02/12/02; signed by Deputy Secretary Bedwell
Modified 02/07/06; signed by Siting Administrator Owen