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MEMORANDUM

TO:

THOSE NOTED BELOW

FROM:

CLIFFORD A. SCHULMAN

RE:

CONDITIONS OF CERTIFICATION

DATE:

NOVEMBER 26, 1985

Enclosed is a draft of the Conditions of Certification last discussed by the parties on November 20, 1985. I have attempted to show DER's last comments (*), the SFWMD's last comments (**) and Broward's comments (***). A meeting has been scheduled to discuss and finalize these conditions in West Palm Beach at DER Offices on Monday, December 9, 1985, at 10:30 A.M.

If you have any questions regarding this matter, please call me.

CAS/tr

Enclosure

--- V-- -

cc: Mr. Tom Henderson

Mr. Ron Mills

Ron Shapo, Esquire

Mr. Buck Oven

Julie Cobb, Esquire

Irene K. Quincy, Esquire

Mr. Charles Lee

Robert Miertschin, Jr., Esquire

* DER Comments

** SFWMD Comments

*** Broward Comments

State of Florida Department of Environmental Regulation South Broward County Resource Recovery Facility Case No. PA 85-21 CONDITIONS OF CERTIFICATION

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State of Florida South Broward County Resource Recovery Facility Case No. PA 85-21 CONDITIONS OF CERTIFICATION

I. CHANGE IN DISCHARGE

All discharges or emissions authorized herein shall be consistent with the terms and conditions of this certification or the levels identified in the application, whichever is the more stringent.* The discharge of any regulated* 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 beyond the certified initial nameplate capacity of 2,250 TPD, 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 supplemental application pursuant to Chapter 403, Florida Statutes.

II. NON-COMPLIANCE NOTIFICATION**

If, for any reason, the Permittee (defined as the Applicant and/or its successors and or assigns) does not comply with or will be unable to comply with any limitation specified in this certification, the Permittee shall notify the Southeast

^{**} SFWMD still wants to review and discuss.

Florida District Office of the Department of Environmental Regulation (Southeast District Office) by telephone within a working day that said noncompliance occurs and shall confirm this 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.

III. 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. Stoppages of landfill operations induced by weather conditions shall be allowed until the weather permits operations to resume. In the event of a malfunction of a unit's pollution control system that unit's furnace emissions must be shifted to the extent feasible to one or both of the remaining units having a properly functioning pollution control system. In the event of a prolonged (thirty (30) days or more) equipment malfunction or shutdown of air pollution control equipment, operation could be permitted to continue to take place under a consent order, only

if the Permittee demonstrates that such operation will be in compliance with all applicable ambient air quality standards and PSD increments, solid waste rules, domestic waste rules and industrial waste rules. Additionally, during such malfunction or shutdown, the source shall comply with all other requirements of this certification and all applicable state and federal emission standards not affected by the malfunction or shutdown which is the subject of the state consent order. Administrative action will not be initiated in the event of such a malfunction for 25 days following a malfunction unless there is an imminent health threat. However, if at thirty (30) days following a malfunction compliance has not been achieved by the source, an* Order for Corrective Action may be immediately imposed upon the Applicant, subject to the provisions of Chapter 120 of the Florida Statutes. Operational stoppages exceeding four hours or operational malfunctions as noted below exceeding four hours and as defined in the operational contingency plans as specified in Condition XVII are to be reported as specified in Condition II. Identified operational malfunctions which do not stop operation which will compromise the integrity of the operation shall be reported to the Southeast District Manager as specified in Condition II.

IV. 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 accel-

erated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

V. RIGHT OF ENTRY

The Permittee shall allow during operational hours the Secretary of the Florida Department of Environmental Regulation and/or authorized representatives, upon the presentation of credentials:

- A. 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 certification, and
- B. To have access upon 24 hours notice* ** during normal business hours (9:00 A.M. to 5:00 P.M.) to and copy any records required to be kept under the conditions of this certification, and
- C. To inspect and test any monitoring equipment or monitoring method required in this certification and to sample any discharge or pollutants, and
- D. To assess any damage to the environment or violation of ambient standards.

VI. REVOCATION OR SUSPENSION

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

^{**} SFWMD - other than business records, at any time.

VII. CIVIL AND CRIMINAL LIABILITY

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.

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.

VIII. PROPERTY RIGHTS

The issuance of this certification does not convey any property rights in either real or personal property, nor 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.

IX. SEVERABILITY

The provisions of this certification are severable, and if any provisions 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.

X. DEFINITIONS

The meaning of terms used herein shall be governed by the definitions contained in the Chapter 403, Florida Statutes and any regulations adopted pursuant thereto. In the event of any dispute over the meaning of a term in these 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. Words or phrases used herein dealing with conditions of the SFWMD shall be defined by reference to Chapter 373, Florida Statutes or applicable rules of the SFWMD.**

XI. 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 purpose 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.

XII. MODIFICATION OF CONDITIONS

Pursuant to Subsection 403.516(1), F.S., the Board hereby delegates the authority to the Secretary to modify any condition of this certification dealing with sampling, monitoring, reporting, specification of control equipment, related time schedules, emission limitations subject to notice and opportunity for hearing, or any special studies conducted, as necessary to attain the objectives of Chapter 403, Florida Statutes. Requests for modifications of monitoring requirements shall not be unreasonably withheld by the Department.***

All other modifications shall be made in accordance with Section 403.516, Florida Statutes.

XIII. CONSTRUCTION

ant to the design concepts presented in the application and the standards or plans and drawings submitted and signed by an engineer registered in the state of Florida. The Applicant shall present upon request, specific facility plans, as developed, for review by the Southeast District prior to construction pursuant to the portions of the plans then being submitted. Specific Southeast District Approval of plans will be required prior to initiating construction of the: leachate collection system, air pollution control equipment; stormwater runoff system; closure plans and hazardous, toxic or pathological handling facilities or areas. Review and action by the Southeast District on said plans

shall be accomplished in no longer than thirty (30) days from the date of a complete* their submittal of such* and any action may be subject to review pursuant to Chapter 120, Florida Statutes.

A. Control Measures

1. Stormwater Runoff

To control runoff during construction which may reach and thereby pollute waters of the State, necessary measures shall be utilized to settle, filter, treat or absorb silt-containing or pollutant-laden stormwater to ensure against spillage or discharge of excavated material that may cause turbidity in excess of 29 Nephelometric Turbidity Units above background in Waters of the State. 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. The permittee shall comply with Florida Administrative Code Chapters 17-25 and 40E-The permittee shall complete the forms required by 17-25.09(1) and 40E-4 and submit those forms and the required information to the South Florida Water Management District and Southeast District* for approval no later than 90 days prior to start of construction including design drawings indicating flow drainage plans during facility construction and operation. submitted to SFWMB and the department's District Office.* To prevent the discharge of turbid water (greater than 29 NTU's above background) from the site during construction, a temporary berm with 3H:1V side slopes and an elevation of +95 the 25 year, 3 day storm event** ft. NGVB shall be constructed around the resource recovery site (except for the landfill areas and the road past the Fort Lauderdale compost plant) prior to commencement of work on the facility.

2. Burning

Open burning in connection with land clearing shall be in accordance with Chapter 17-5, FAC, and Uniform Fire Code Section 33.101 Addendum. No additional permits shall be required, but prior to each act of burning, the Division of Forestry shall be contacted to determine if satisfactory conditions exist for burning. Open burning shall not occur if the Division of Forestry has issued a ban on burning due to fire hazard conditions.

3. Sanitary Wastes

Disposal of sanitary wastes from construction toilet facilities shall be in accordance with applicable regulations of the appropriate local health agency.

4. Solid Wastes

Solid wastes resulting from construction shall be disposed of in accordance with the applicable regulations of Chapter 17-7, FAC.

5. Noise

Construction noise shall not exceed local noise ordinance specifications, nor those noise standards imposed by zoning.

6. Dust

The <u>Permittee</u> shall employ proper dust-control techniques to minimize fugitive dust emissions.

7. Transmission Lines

The directly associated transmission lines from the Resource Recovery Facility electric generators to the existing Florida Power and Light Company substation shall be cleared, maintained and prepared without the use of herbicides.

8. Restoration/Revegetation

Within 60 days of permit certification** issuance, Broward County shall submit a restoration/revegetation plan for the wetlands areas identified in section 3.2.3 of the application to the Southeast District and S.F.W.M.D. for evaluation and approval. The plan shall include the commencement and completion dates of all anticipated restoration/revegetation work, dredge and fill volumes, elevations, methods of construction and planting schedules, pumping schedules and methods to ensure vegetative survival for each area.

9. Conservation Easement

Subject to the approval of the Trustees of the Internal Improvement Fund and Governing Board of the Water Man-

agement District, if required, and before the commencement of any construction herein authorized, the Permittee County shall file and have recorded, in the same manner as any other instrument affecting the title to real property, a conservation easement pursuant to Section 704.06, Florida Statutes, in the office of the Clerk of the Circuit Court, Broward County for the following areas:

- a. Site No. 1, 18 acres in Section 30, Township 50 South, Range 42 East;
- b. Site No. 2, 15 acres in Section 19, Township 50 South, Range 42 East;
- c. Site No. 3, 16 acres (Hacienda Flores) Section 19, Township 50 South, Range 42 East;
- d. Site No. 4, 15 acres (Tree Tops Park), Section 29, Township 50 South, Range 41 East;
- e. Site No. 5, 74 acres, Section 26, Town-ship 50 South, Range 39 East and;
- f. The 15 acre riverine restoration area adjacent to the resource recovery facility in Section 25, Township 50 South, Range 41 East, Broward County.

The County shall pay all recording fees. The conservation easement shall be in favor of the Department of Environmental Regulation and shall restrict any activity including dredging and filling of land, cutting, eradicating or pruning of endemic vegetation beyond the scope of the approved restoration plan indicated in Condition No. XIII.A.8. A draft conservation easement and a certified survey with a legal description shall be

submitted to the Bureau of Permitting in Tallahassee for review and approval before it is filed (by the <u>County</u>) with the Clerk of the Circuit Court, Broward County. <u>Approval of the Trustees and Governing Board</u>, as noted above, shall be <u>cited acted* upon within the time frame set forth in § 403.509(1), Florida Statutes</u>, if not already granted by the <u>Certification order of the Power Plant Siting Board or at the next Governing Board of the SFWMD, if required.**</u>

10. Written Notice

Written notice from the Department indicating that Conditions Nos. XIII.A. 8 and 9 have been satisfied shall be obtained by Broward County prior to the beginning any construction. All work in the restoration sites shall be completed within one year of commencement of construction on the landfill site.

11. Time Limitations

If the proposed work, except for construction of the landfills, within the jurisdictional area has not been completed within 5 years of the date of certification, a permit application shall be resubmitted to the Department for evaluation and shall be accompanied by the appropriate fee.

12. Monitoring

The following surface water monitoring program shall be implemented during construction for:

Parameter: Dissolved oxygen, temperature (C°), pH, total and fecal coliform bacteria, benthic macroinvertebrates, iron, lead, copper, mercury, cadmium, zinc, silver and turbidity.

Frequency: Quarterly throughout the year except that the samples shall be collected monthly for April, June, August and September. Sampling shall begin at least 30 days prior to initial construction for background levels. All samples, except benthic macroinvertebrates, shall be taken for a 24 hour period, at 4 hour intervals beginning one hour before sunrise. Benthic macroinvertebrates shall be taken once each sampling period.

Sampling:

Locations: Upgradient, 150 meters downgradient from the retention pond discharge point in the river at the surface, mid-depth and 1 ft. above the bottom. These locations will be called sampling points A (upgradient) D and F (downgradient) as shown in Figure 2.3.4.1 of the application.

Analyses:

Water quality analyses should be performed at detection levels commensurate with water quality criteria for Class III waters (F.A.C. rule 17-3.121).

If a violation occurs for any sampled parameter, the Permittee shall, after notifying the Department, institute corrective action to abate the violation if it is the result of activities of the Permittee. Corrective action may include further monitoring to determine the extent and degree of viola-

tion. Any modifications shall be coordinated with the Southeast District Office. Department approval shall be obtained prior to any action constituting a modification of this permit.

All monitoring reports shall be submitted to the Bureau of Permitting, in Tallahassee, Southeast District Office, and the South Florida Water Management District (SFWMD or District), under a cover letter containing the following information: (1) certification number; (2) handling, storage and analysis of the samples; (3) a map indicating the sampling locations; and (4) a statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection and accuracy of the data. Monitoring reports shall also include the following information for each sample that is taken:

- (1) time of day samples taken;
- (2) depth of water body;
- (3) depth of sample;
- (4) antecedent weather conditions:
- (5) tidal stage and direction of flow; and
- (6) wind direction and velocity.
- (7) status of control structure S-13 (open or closed)
- (8) status of flow from site storm water discharge structures. (flowing or not flowing).

Monitoring reports shall be submitted to the Southeast District and S.F.W.M.D. within 2 weeks of completion of analysis for each sampling period.

13. Protection of Vegetation

The Permittee shall develop the construction site and Broward County shall develop the mitigation areas so as to retain endangered and threatened plants, or replant these plants in another suitable environment. Any endangered or threatened plants should be staked in the field or relocated, as appropriate, prior to commencement of any construction or site preparation activities.

14. Dewatering Operations

There shall be no dewatering operations during construction without approval of SFWMD. Such approval may be obtained by submitting an application to SFWMD at least 90* days prior to start of dewatering operations. Any discharge of water from dewatering operations shall not violate water quality standards.

B. 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 applicable environmental requilations and the applicable conditions of certification.

If unexpected or harmful effects or irreversible environmental damage not anticipated by the application or the evidence presented at the certification hearing are detected during construction, the Permittee shall notify the Southeast District Office as required by Condition II.

C. Reporting

- 1. Notice of commencement of construction shall be submitted to the Southeast District Office within 15 days of initiation. Starting three (3) months after construction commences, a quarterly construction status report shall be submitted to the Southeast District Office. The report shall be a short narrative describing the progress of construction.
- 2. Upon or immediately prior to completion of construction of the resource recovery facility or a phase thereof and upon or immediately prior to completion of all necessary preparation for the operation of each landfill cell, the Southeast District Office will be notified of a date on which a site or facility inspection should be performed in accordance with Condition V. and the inspection shall be performed within fourteen (14) days of the date of notification by Permittee.

XIV. OPERATION

A. Air

The operation of the Resource Recovery Facility shall be in accordance with all applicable provisions of Chapter 17-2, 17-5, and 17-7, Florida Administrative Code. In addition to the foregoing, the Permittee shall comply with the following specific conditions of certification:

- 1. Emission Limitations upon Operation of Units 1-3
- a. Stack emissions from each unit shall not exceed the following:
 - (1) Particulate matter: $\theta = \theta = \theta = 0.03$ ***

 grains per standard cubic foot dry gas

 corrected to 12% CO₂.*
 - SO_2 : $\theta = 31$ lbs $\neq MBtu$ 3θ day rolling (2) average, not to exceed 0.62 0.55 lb/MBtu as a result of the average of three (3) stack runs. 0.31 lbs/MBtu average not <u>0,62</u> <u>exceed</u> <u>lb/MBtu</u> <u>one</u> <u>to</u> average. <u>Compliance</u> with <u>SO₂</u> emission <u>limits</u> <u>shall</u> <u>be</u> <u>determined</u> <u>by</u> <u>annual</u> stack tests. The average of three or more stack test runs shall determine the average value. The hourly average shall be determined by the average of three (3) test runs in an hour-
 - (3) Nitrogen Oxides: 0.56 lbs/MBtu heat input.
 - (4) Carbon Monoxide: 0.09 lbs/MBtu.
 - (5) Lead: $\theta = \theta = \theta = 0.003$ *** lbs/MBtu heat input.
 - (6) Mercury: 3200 grams/day for the entire facility: or when firing sludge: 0:00092 lbs/MBtu; whichever is less stringent:

- (7) Odor: there shall be no objectionable odor at the site boundary.
- (8) Visible emissions: opacity shall be no greater than 15% except that visible emissions with no more than 20% opacity may be allowed for up to three consecutive minutes in any one hour except during start up or upsets when the provisions of 17-2.250, FAC, shall apply. Opacity compliance shall be demonstrated in accordance with Florida Administrative Code Rule 17-2.700(6)(a)9., DER Method 9.
- (9) Fluoride: $\theta = \theta = 0.018$ lb/MBtu <u>heat</u> input.
- (10) Beryllium: 9.3xE-7 lb/MBtu heat input.
- (11) VOC: 0.013 lb/MBtu heat input.
- (12) Sulfuric Acid Mist: 0:0047* 0.047

 lb/MBtu.
- b. The height of the boiler exhaust stack shall not be less than 195 feet above grade.
- c. The incinerator boilers shall not be loaded in excess of either 115% of their rated nameplate capacity of 62,500 pounds of MSW or 115% of 281 x 10^6 Btu per hour each.

- d. The incinerator boilers shall have a metal nameplate affixed in a conspicuous place on the shell showing manufacturer, model number, type waste, and rated capacity.
- e.' Compliance with the limitations for particulates, sulfur oxides, nitrogen oxides, carbon monoxide, fluoride, sulfuric acid mist, VOC and lead shall be determined in accordance with Florida Administrative Code Rule 17-2.700, DER Methods 1, 2, 3, and 40 CFR 60, Appendix A, Methods 5, 7, 8 (modified with prefilter), 10, 12, 13A or 13B (or modified method 5 for flourides) and 25. The stack test for each unit shall be performed at $\pm 10\%$ of the nominal heat input rate of 323* x 10^6 Btu per hour. Compliance with the beryllium emission limitation shall be determined in accordance with 40 CFR 61, Method 103 or 104, Appendix B. Compliance testing for mercury shall be determined in accordance with 40 CFR 61, Method 101, Appendix B. Particulate testing shall include one run during representative soot blowing which shall be averaged proportionally to normal daily operations. Visible emission testing shall be conducted simultaneously with soot blowing and non-soot blowing runs.

2. Emissions Control Equipment

- a. The particulate emission control device shall be designed and constructed to achieve a maximum emission rate of θ - θ + θ + θ * 0.03 grains per dscf corrected to 12% CO₂.
- b. The flouride, HCl and sulfuric acid mist gas controls system shall be designed to remove at least 90% of the maximum projected inlet concentrations.

c. The Permittee must submit to the Department within thirty (30) days after it becomes available, copies of technical data pertaining to the selected emissions control systems. These data should include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters. The data shall be processed and approved or denied in accordance with F.S. 120.60.

3. Air Monitoring Program

- a. The Permittee shall install and operate continuously monitoring devices for flue gas oxygen and opacity. The monitoring devices shall meet the applicable requirements of Chapter 17-2, Section 17-2.710, FAC, and 40 CFR 60.45, and 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications. Re-certification shall be conducted annually from initial certification. Data on monitoring equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location after the economizer or in the air pollution control equipment outlet duct shall be provided to the Department for approval prior to installation.
- b. The Permittee shall provide sampling ports in the air pollution control equipment outlet duct or stack and shall provide access to the sampling ports in accordance with Section 17-2.700, FAC. Drawings of testing facilities including sampling port locations as required by Section 17-2.700 shall be

submitted to the Department for approval at least 120 days prior to construction of the sampling ports and stack.

c. The Permittee shall have a sampling test of the emissions performed by a commercial testing firm within 180 days of the start of operation of the boilers and annually from the date of testing thereafter.

4. Reporting

- a. Two copies of the results of the emissions tests for the pollutants listed in XIV A.l.a. shall be submitted within forty-five days of receipt to the Southeast District Office. An additional copy shall be submitted to the Broward County Environmental Control Board.
- b. Emissions monitoring shall be reported to the Southeast District Office on a quarterly basis in accordance with Section 17-2.710, FAC, and 40 CFR, Part 60, Subsection 60.7.
- c. Notice of anticipated and actual start-up dates of each incinerator boiler shall be submitted to the DER Southeast District Office.

5. Unconfined Emissions

Proper dust control techniques such as water sprays or chemical wetting agents or other containment method shall be used to control visible unconfined (Fugitive) emissions to no more that 10% opacity for more than three (3) minutes (cumulative) in any fifteen (15) minute period as determined by 40 C.F.R. 60, Appendix A, Method 22.

B. Fuel

The Resource Recovery Facility shall utilize refuse such as garbage and trash (as defined in Chapter 17-7, FAC) as its fuel. Use of alternate fuels except for distillate fuel oil or natural gas in start-up burners would necessitate modification of these Conditions of Certification. Refuse as fuel shall not include "hazardous waste" as defined in Chapter 17-30, FAC. The alternate fuel shall not contain more than 0.3% sulfur and shall not be used more than required during boiler startup or shut down.

C. Wastewater Disposal

Plans, drawings and specifications for leachate collection systems, pumps, lift stations, sewage collection systems, and wastewater collection systems shall be furnished to the Southeast District and the South Florida Water Management District for approval at least 60 days prior to start of construction for the particular construction of such component. Also plans and specifications for connections to off-site sewage and wastewater transmission systems shall be furnished to the Southeast District and the Broward County Environmental Quality Control Board for approval 120 days prior to construction.

D. <u>Water Discharges</u>

1. Surface Water

a. Any discharges from the site stormwater system via the emergency overflow structures which result from an

event LESS than a ten-year, 24-hour storm (as defined by the U.S. Weather Bureau Technical Paper No. 40, or the DOT drainage manual, or similar documents) shall meet State Water Quality Standards, Chapter 17-3, FAC, the Standards of Chapter 17-25, FAC, and Chapter 40 E-2 and 40 E-4, FAC.

b. Sampling of water quality in the South Fork New River Canal shall be performed monthly at stations A, D, F, and G as shown on Figure 2.3.4.1. of the application. The sampling shall commence upon the start of operation. The results of the sampling shall be reported to the Southeast District Office quarterly for the following parameters:

DO	Copper	Cadmium
BOD	Nitrates	Iron
TSS	Nickel	Lead
Oil and Grease	рН	COD
Zinc	Mercury	Temperature

Benthic Macroinvertebrates (quarterly)

Fecal coliform bacteria Total coliform bacteria

2. Groundwaters

a. All discharges to groundwaters, such as land-fill leachate, shall be collected and treated as necessary, or otherwise be of high enough quality, to be able to meet the Water Quality Standards of Sections 17-3.402 and 17-3.404, FAC, at the boundary of the site.

3. Groundwater Monitoring Program

- a. Sampling of the shallow aquifer groundwater quality shall be conducted in at least six well clusters in the site vicinity. At least one of the these wells shall be up hydrologic slope from the landfill area to provide current background data. Other wells shall be located down hydrologic slope from the landfill areas. Specific location of these wells and the monitoring program may be proposed by the applicant, but must be approved by the Department at least fourteen months prior to start of operation of the facility.
- b. Operational background monitoring shall commence at least one year prior to operation of the resource recovery facility. Construction of monitoring wells and the collection of samples shall be in accordance with EPA recommended methods as contained in Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities (EPA/530/SW-611). The wells shall be deep enough to ensure that groundwater samples can be obtained with the groundwater table elevation at its estimated lowest point and shall be protected from damage and destruction. Samples shall be analyzed in accordance with the methods described in Chapter 17-4, FAC. Analyses shall be performed by laboratories which are approved by the Department of Health and Rehabilitative Services to conduct analysis pursuant to Section 403.863, F.S., the State Public Water Supply Laboratory Certification Program.

c. The wells shall be monitored on a quarterly basis for the following parameters:

Conductivity	Arsenic	Selenium	Sulfate
Nitrates	Barium	Silver	Manganese
Iron	Cadmium	Chlorides	TDS
COD	Chromium	рН	Sodium
Nickel	Lead	Copper	Zinc
Aluminum	Mercury		

Total Coliform Bacteria

- 4. Reports shall be submitted in duplicate within 30 days of receipt of analysis results to the Southeast District Office for distribution to the appropriate review personnel.
- 5. The monitoring program may be reviewed annually by the Department, and a determination made as to the necessity and extent of continuation of the program. Aspects of the program related to sampling, monitoring, reporting, and related time schedules may be modified in accordance with the provisions of conditions number XII.

E. Solid/Hazardous Waste

1. Operation of the associated landfill shall be done in accordance with all applicable portions of Chapter 17-7, FAC, including prohibitions, procedures for closing of the landfill, and final cover requirements, or, as provided in this condition

- (XIV.E.) in its entirety. The plans of the final landfill design shall be provided to the Department for review and approval at least 180 days prior to start of operation. The final plans for this Facility shall include provisions for the isolated temporary handling of suspected hazardous, toxic or pathological wastes.
- 2. No suspected or known hazardous, toxic, or pathological wastes shall be burned or landfilled at the site.
- 3. Rodent and insect control shall be provided as necessary to protect the health and safety of site employees and the public. Pesticides used to control rodents, flies, and other vectors shall be as specified by the Florida Department of Agriculture and Consumer Services.
- 4. Storage of putrescible waste for processing shall not exceed storage capacity of the refuse bunker or tipping floor as designed on the approved plan.
- 5. Ash prior to transport to the landfill shall be stored in an enclosed building on an impervious surface and no leachate shall be permitted to escape from the building with final disposal of the ash into the lined landfill or other method approved by the Southeast District.
- 6. A monthly report shall be prepared detailing the amount and type (putrescible, special wastes, boiler residue, etc.) of materials landfilled at the site, and the treatment provided (see conditions XIV.E.2 above). These reports shall be furnished to the Southeast District Office quarterly, commencing

120 days after the Resource Recovery Facility becomes operational and is producing residues.

- 7. Unless approved by the Department with subsequent modification of conditions, this facility shall not accept materials currently defined as "Hazardous Wastes", i.e., pesticides, volatile or radioactive material, etc.
- 8. All cells will be constructed to promote leachate drainage to a low end of the cell; all leachate formed at the low end of active or inactive cells containing waste materials shall be pumped or transported to the leachate collection system for transmission into to a permitted treatment system. Leachate collected above the primary liner shall be monitored monthly for conductivity, pH, copper, arsenic, zinc, oil and grease and total organic halogens. Results of such monitoring shall be reported to the operator of the receiving municipal sewage treatment plant and the Southeast District. Leachate collected between the primary and secondary liners shall be monitored quarterly for conductivity, chlorides, ammonia, iron, sulfur, nitrates, and zinc. Results will be reported to the Southeast District within 30 days.
- 9. A chemical analysis of the boiler bottom ash residue including EP toxicity, if applicable, shall be conducted within 30 days after commencement of commercial operation, testing at the approved test methodology levels at least equivalent to safe drinking water quality standards as contained in Rule

- 17-22, F.A.C. for Arsenic, Cadmium, Chromium, dioxins, Mercury, pesticides, Zinc and Lead to determine the nature and potential toxicity or hazardousness of the boiler bottom ash residue left after the combustion process.
- 10. Results from said residue analysis shall be sent to the Southeast District Office within 30 days of receipt. Results will be used to determine whether or not these materials constitute a "Hazardous Waste" as defined by applicable Federal or state regulations results of these analyses may also be used for correlation with groundwater monitoring information and in any subsequent modification of conditions.
- 11. If residue materials are determined to be a "Hazardous Waste", then measures shall be taken to treat or dispose of the residues pursuant to rule promulgated by Federal, State, or Local authorities, as may be applicable.
- ity becomes altered, either due to modification of conditions, i.e., the facility is allowed to incinerate already known hazardous wastes such as pesticides, or if groundwater monitoring reveals abnormal groundwater conditions which may be attributable to the landfilling of this residue, then a subsequent analysis may be required at that time.
- 13. There shall be no discharge to waters of the State of polychlorinated biphenyl compounds.

Office with a set of full-sized engineering plans signed and sealed by an engineer registered in the state of Florid. for the operational and closure phases of the landfill for review and approval at least 90 days prior to implementation of those phases. Within 90 days after completion of construction the closure phase of the project, the Permittee shall submit certified as-built plans signed and sealed by a Florida Registered Professional Engineer.

throughout the cell, the liners will be installed either by the manufacturer or by a competent experienced lining contractor according to the manufacturer's specifications. In addition, as part of quality control measures, field seams between in-place liner and newly installed liner will be tested according to ASTM specifications to insure integrity between materials. Top liners shall be installed in accordance with Closure requirements of the Southeast District and S.F.W.M.D.

F. Operational Safeguards

The overall design and layout of the facilities shall be such as to mitigate potential adverse effects 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. The safety standards

specified under Section 440.56, Florida Statutes, by the Industrial Safety Section of the Florida Department of Commerce will be complied with during operation.

G. Transmission Lines

The directly associated transmission lines from the Resource Recovery Facility electric generators to the Florida Power and Light Company Substation shall be kept cleared without the use of herbicides.

H. Noise

Operational noises shall not exceed local noise ordinance limitations nor those noise standards imposed by zoning.

I. Water Consumption

No groundwater from on-site wells may be used for cooling water.

XV. WATER MANAGEMENT DISTRICT CONDITIONS - GENERAL**

A. The County and the Permittee shall prosecute the work authorized under the Certification in a manner so as to minimize any adverse impact of the works on fish, wildlife, natural environmental values, and water quality. The County and the Permittee shall institute necessary measures during the construction period, including full compaction of any fill material placed around newly installed structures, to reduce erosion, turbidity, nutrient loading and sedimentation in the receiving waters.

^{**} District to discuss use of words "Vendee-Permitee".

- B. Water quality data required by this Certification for the surface water management system shall be submitted to the S.F.W.M.D. and Southeast District. Parameters to be monitored include but are not limited to those listed in Chapter 17-3 and 17-4, F.A.C. If water quality data is required by the any conditions hereof, the County and the Permittee shall provide such data to the District on volumes of water discharged, including total volume discharged during the days of sampling and total discharges from the property or into surface waters of the state.
- C. The operational phases of the surface water management system authorized under this Certification shall not become effective until a Florida registered professional engineer certifies upon completion of each phase that these facilities have been constructed in accordance with the design approved by the District. Within 30 days after completion of construction of each phase, the County and the Permittee shall submit the engineer's certification, and notify the District that the facilities are ready for inspection and approval.
- D. All roads shall be set at or above the elevation acceptable to Broward County, per Ordinance 81-16, as may be amended.
- E. All building floors shall be set at or above elevations required by Broward County, per Ordinance 81-16, as may be amended.

- F. Off-site discharges during construction and development shall be made only through the discharge structures authorized by this Certification.
- G. No construction authorized herein shall commence until the Permittee or Vendor** has agreed, in writing, that it will be responsible for the construction, operation, and maintenance of the entire surface water management system for the certified facility during the term of its lease.
- H. No construction authorized herein shall commence until the County has agreed, in writing, by letter or resolution, that it will be responsible for the construction, operation, and perpetual maintenance of the entire surface water management system, both during operation of the facility and following the closure of the whole or any part of the facility.
- I. This Certification is based on the applicant's submitted information to the District which reasonably demonstrates that adverse off-site water resource related impacts will not be caused by the authorized activities. The plans, drawings, and design specifications submitted to by* the applicant shall be considered the minimum standards for compliance. It is also the responsibility of the County and the Permittee to ensure that adverse off-site water resource related impacts do not occur during construction.
- J. The County and the <u>Vendor or</u> ** Permittee shall secure a well construction permit prior to construction, repair, or abandonment of any wells as described in Chapter 40E-3, F.A.C.

- K. In the event of a declared water shortage, water use reductions will be ordered by the District in accordance with the Water Shortage Plan, Chapter 40E-21, F.A.C.
- L. This project must be constructed in compliance with and meet all requirements set forth in Chapter 373, Florida Statutes, and Chapters 40E-2, 40E-3, and 40E-4, F.A.C.
- M. The County shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, operation, maintenance or use of any facility authorized by this Certification, to the extent permitted under Florida law.
- N. The <u>Permittee and</u>** Vendor shall hold and save the District harmless from any and all damages, claims, or liabilities caused by the <u>Permittee or</u>** Vendor's negligence which may arise by reason of the construction, operation, maintenance or use of any facility authorized by this Certification.
- O. Authorized representatives of the District shall be allowed to enter the premises to inspect and observe the operation of the surface water management system and associated landfill facilities, mitigation areas, and monitoring wells in order to determine compliance with the conditions of this Certification, as provided in Condition V.

XVI. WATER MANAGEMENT DISTRICT - SITE SPECIFIC STANDARDS

- A. Prior to construction of any phase of either the Solid Waste Energy Resource Recovery Facility or the ash residue/unprocessable materials landfill, a complete set of paving, grading, and drainage plans with supporting calculations must be submitted to the South Florida Water Management District, for a determination of compliance of each phase with Chapter 40E-2 and 40E-4, F.A.C. Said plans shall include the following:
- Paving, grading and drainage plans with special attention to perimeter site grading; and
 - 2. Drainage calculations including:
- a. Design storms used including depth, duration and distribution;
 - b. Off-site inflows;
- c. Stage-storage computations for the project and stage-discharge computations for the outfall structure(s);
- d. Acreages and percentage of property proposed as:
 - (1) impervious surfaces (excluding water
 bodies;
 - (2) pervious surfaces (green areas);
 - (3) lakes, canals, retention areas, etc.;
 - (4) total acreage of the project;
- e. Runoff routing calculations showing discharges, elevations, and volumes detained during applicable storm events; and

f. Calculations required for determination of minimum building floor and road elevations.

• • • •

- B. Subsequent modifications to the drawings and supporting calculations submitted to the South Florida Water Management District shall be pursuant to Section 403.516, F.S., and Rule 17-17.211, F.A.C., and shall be submitted to the District for a determination that the modifications are in compliance with Chapters 40E-2 and 40E-4, F.A.C.
- C. Depending on the calculations submitted, water quality assurances must be provided for stormwater runoff from all portions of the landfill(s) which do not have final cover.
- D. District permits (Water Use and Surface Water Management) may be required for off-site mitigation areas and are considered by this agency for permitting purposes as separate from this Certification.
- E. Prior to the District declaring any easements as surplus, the following must have been met:
- 1. The District has reviewed and is satisfied with the detailed mitigation plans for the lands within the South New River Canal right of way; and
- 2. Broward County must enter into a Memorandum of Understanding with the District regarding future maintenance of the canal in the event that flow restrictions result from the facility.

- F. In the event the District does not declare as surplus all of its properties which the applicant proposes to use, connect to, or cross over, such use, connection, or crossing must meet the District's criteria for the issuance of a right-of-way permit, found in Chapter 40E-6, F.A.C.
- G. There shall be no on-site withdrawal of groundwater or dewatering, unless the following conditions are met:
- 1. Withdrawal rates, well construction details, well locations, and the data from the long term groundwater monitoring network are provided to the District;
- 2. The impacts of the proposed withdrawals are assessed and provided to the District;
- 3. No dewatering discharge shall be allowed to drain to tidal waters; and
- 4. The District concurs that there will be no adverse impacts as a result of the proposed withdrawals.
- H. Final water use rates for process and irrigation shall be submitted to the District when the final plant design is determined.
- I. Pursuant to Chapter 17-7, F.A.C., a closure plan shall be submitted to the District. In addition, the plan shall contain information on irrigation demands and sources for the grassed/vegetation areas.
- J. If not provided pursuant to <u>Section XVI B, the</u> retention/detention requirements contained in the Basis of Review for

Surface Water Management Systems (40E-4.091(1)(a) for water quality enhancement must be provided to the District prior to the construction of Landfill Cell II.

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- K. Additional filtration for enhancement of stormwater should be provided by discharging through spreader mechanisms into the on-site wetland mitigation areas.
- L. Discharge structures shall include a baffle, skimmer, or other mechanism suitable for preventing oil, grease, or other floatable materials from discharging to and/or from retention/-detention areas.
- M. The Permittee shall install screw gates on water control structures capable of restricting discharge of poor quality surface water and, prior to construction. The Permittee or Vendor** shall submit the location of these screw gates to the District.
- N. The Permittee shall stabilize critical areas, including the conveyance and perimeter swales, and areas adjacent to the let down pipes to prevent erosion.
- O. Energy dissipators shall be used whenever let down pipes discharge into perimeter swales, or the let down pipes meet the terraces.
- P. Water quality samples shall be taken at the <u>surface</u> water** discharge structure locations of the water management system during periods of discharge according to the schedule below. Flow shall be measured at the time of sample collection

and the surface elevation of the water shall be provided. A laboratory certified by the State of Florida shall be responsible for all water quality sampling and analyses. Reports shall be submitted to this District on a semi-annual basis. Monitoring requirements will be evaluated by this District following two years of data collection.

Monitoring Type Schedule

Parameters

A. General (Quarterly)

Total Organic Carbon, Dissolved Oxygen, pH, Turbidity, Specific Conductance, Chemical Oxygen Demand, Alkalinity, Total Suspended Solids.

 Trichloroethylene, Tetrachloro-Ethylene, Carbon Tetrachloride, Vinyl Chloride, 1,1,1-Trichloroethane, 1,2-Dichloroethane, Benzene, Ethylene, Dibromide.

C. Metals
 (Semi-annual)

Aluminum, Antimony, Beryllium, Cadmium, Copper, Cyanide, Iron, Lead, Mercury, Nickel, Selenium, Silver, and Zinc.

- Q. The District also recommends that Two** additional shallow groundwater monitoring well clusters be added to complete the groundwater monitoring network. The two well clusters shall include an upgradient well cluster, west of the resource recovery facility, and a down gradient well cluster, between the resource recovery facility and the South New River. The wells shall be monitored according to the provisions of Condition XIV.D.3.
- R. Prior to the commencement of construction, the District staff must have received and reviewed any pertinent additional

information required to be submitted under the District's site specific standards and the conditions of certification, and must issue a written approval for the desired constructions.

S.** In the event of the installation of an air pollution control scrubbing system the Permittee shall submit he following to the District for review and approval;

- 1. Design and supporting documentation for the scrubber system, including chemical and physical properties of any possible waste products generated by the system and the method of disposal of such waste.
- 2. Calculations and supporting documentation of the effect, if any, that the disposal of the scrubber waste product will have on the surface water management system or storm water runoff quality.
- 3. Calculations and supporting documentation for any additional water use as a result of construction and operation of the scrubber system.
- 4. Proposed source of water for the scrubber system. If the proposed source of water is onsite withdrawal of groundwater, the applicant shall meet the requirements of Condition XVI.a. herein.
- 5. If the proposed source of scrubber water is a public water supply system, the Permittee shall receive approval by the District prior to construction of the scrubber system.

XVII. OPERATIONAL CONTINGENCY PLANS

A. Operating Procedures

The permittee shall develop and furnish the Southeast District a copy of written operating instructions for all aspects of the operation which are critical to keeping the facility working properly. The instructions shall also include procedures for the handling of suspected hazardous, toxic and pathological wastes.

B. Contingency Plans

The Permittee shall develop and furnish the Southeast District Office written contingency plans for the continued operation of the system in the event of breakdown. Stoppages which compromise the integrity of the operations must have appropriate contingency plans. Such contingency plans should identify critical spare parts to be readily available.

C. Current Engineering Plan

The Permittee shall maintain a complete current set of modified engineering plans and documents in order to facilitate the smooth acquisition or fabrication of spare parts or mechanical modifications.

D. Application Modifications

The Permittee shall furnish appropriate modifications to drawings and plot plans submitted as part of the application.

including operational procedures for isolation and containment of hazardous wastes.

- E. If certain contractual rights or duties and obligations of certification are transferred, the Permittee shall notify the Department who will be responsible for compliance with the certification and who will be fully subject to the limitations and conditions of this certification.
- E.** If contractural rights are transferred under this certification, Notice of such transfer or assignment shall immediately by submitted to the Department of Environmental Regulation

and South Florida Water Management District by the previous certification holder (Permittee) and Assignee. Included within the Notice shall be the identification of the entity responsible for compliance with the certification. Any assignment or transfer shall carry with it full responsibility for the limitations and conditions of this certification.

F. Proprietary Documents or Information - Confidentiality

Proprietary or confidential data, documents or information submitted or disclosed to any agency shall be identified as such by the Permittee and shall be maintained as such pursuant to applicable Florida law.

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South Broward County, Florida

3- 900 TPD Incinerators 100% Excess Air 691493 ACFM @ 450°F Stack Effluent @ 250°F 350 Operating Days/Yr. Capital Cost - \$13,000,000

	\$/Ton	<pre>\$/Year</pre>
Amortization	1.53	1,444,400
Lime, CaO	0.83	784,400
Tesisorb	0.11	104,000
Power	0.63	593,300
Water	0.11	104,000
Operators	0.25	240,000
Maintenance -	0.34	325,000
Insurance & Misc. Services	0.21	200,000
Contingency	0.37	350,000
Total	4.38	4,147,100

Basis for Costs - Outlet Particulate 0.01 GR/DSCF (Corrected to 12% CO₂)

> Acid Gas Reduction HCl - 90% **-** 70% SO_2 - 95% $_{
> m HF}$ Heavy Metal Reduction - 99%

Amortization - 20 Yr. life - average interest 9.2%

Lime - \$76/Ton - \$/40/Ton Tesisorb - \$0.06/KWH Power

- \$1.50/1000 Gal. Water Operators - \$30,000/Man Year Maintenance - 2.5% Capital Cost

Contingency - 9.4%

State of Florida Department of Environmental Regulation South Broward County Resource Recovery Facility Case No. PA 85-21 CONDITIONS OF CERTIFICATION

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tate of Florida
South Broward County
Resource Recovery Facility
Case No. PA 85-21
CONDITIONS OF CERTIFICATION

I. CHANGE IN DISCHARGE

All discharges or emissions authorized herein shall be consistent with the terms and conditions of this certification. The discharge of any regulated 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 beyond the certified ultimate nameplate capacity of 3,300 TPD, 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 or supplemental application pursuant to Chapter 403, Florida Statutes.

II. NON-COMPLIANCE NOTIFICATION

If, for any reason, the permittee Permittee (defined as the Applicant or its successors or assigns) does not comply with or will be unable to comply with any limitation specified in this certification, the Permittee permittee shall notify the Southwest Southeast Florida District Manager Office of the Department of Environmental Regulation (District Office) by telephone during the within a working day that said noncompliance occurs and shall

confirm this in writing within seventy-two (72) hours one week 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.

III. FACILITIES OPERATION

The Permittee 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 permittee to achieve compliance with the terms and conditions of this certification. Such systems are not to be bypassed without prior Department approval: Stoppages of landfill operations induced by weather conditions shall allowed until the weather permits operations to resume. event of a malfunction of a unit's pollution control system that unit's furnace emissions must be shifted to the extent feasible to one or both of the remaining units having a properly functioning pollution control system. In the event of a prolonged (thirty (30) days or more) equipment malfunction or shutdown of air pollution control equipment, operation could be permitted to continue to take place under a State Order, only if

Permittee demonstrates that such operation will be in the compliance with all applicable ambient air quality standards and increments. Additionally, during such malfunction or shutdown, the source shall comply with all other requirements of this certification and all applicable state and federal emission standards not affected by the malfunction or shutdown which is the subject of the state order. Administrative action will not be initiated in the event of such a malfunction for 25 days following a malfunction unless there is an imminent health threat. However, if at thirty (30) days following a malfunction compliance has not been achieved by the source, a State Order may be immediately imposed upon the Applicant. Operational stoppages exceeding 30 minutes four hours or operational malfunctions the operational exceeding four hours and as defined in contingency plans as specified in Condition XVII are to be reported as specified in Condition II. Operational malfunctions which do not stop operation but prevent correct operation or which will compromise the integrity of the operation shall be reported to the District Manager in writing within 72 hours.

[Comment: Except for the last two sentences (beginning with "[o]perational stoppages"), the revisions suggested in this paragraph would be necessary only if the Department insists on the installation of acid gas removal equipment.]

IV. ADVERSE IMPACT

The <u>Permittee</u> 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 discharge.

V. RIGHT OF ENTRY

The <u>Permittee</u> permittee shall allow <u>during normal</u> <u>business hours</u> the Secretary of the Florida Department of Environmental Regulation and/or authorized representatives, upon the giving of twenty-four hours' written notice and the presentation of credentials:

- A. To enter upon the <u>Permittee's</u> 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 certification, and
- B. To have access to and copy any records required to be kept under the conditions of this certification, and
- C. To inspect and test any monitoring equipment or monitoring method required in this certification and to sample any discharge or pollutants, and
- D. To assess any damage to the environment or violation of ambient standards.

VI. REVOCATION OR SUSPENSION

This certification may be suspended or revoked <u>for</u> violations of any of its conditions pursuant to Section 403.512, Florida Statutes.7 or for violations of any of its conditions.

VII. CIVIL AND CRIMINAL LIABILITY

This certification does not relieve the <u>Permittee</u>

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.

Subject to Section 403.511, Florida Statutes, this certification shall not preclude the institution of any legal action or relieve the <u>Permittee</u> permittee from any responsibilities, or penalties established pursuant to any other applicable State Statutes, or regulations.

VIII. PROPERTY RIGHTS

The issuance of this certification does not convey any property rights in either real or personal property, nor 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.

IX. SEVERABILITY

The provisions of this certification are severable, and if any provisions 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.

X. DEFINITIONS

The meaning of terms used herein shall be governed by the definitions contained in the Chapter 403, Florida Statutes and any regulations adopted pursuant thereto. In the event of any dispute over the meaning of a term 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:

XI. 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 purpose 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 <u>Permittee</u> permittee. Such review will be repeated at least every five years thereafter.

XII. MODIFICATION OF CONDITIONS

Pursuant to Subsection 403.516(1), F.S., the Board hereby delegates the authority to the Secretary to modify any

condition of this certification dealing with sampling, monitoring, reporting, specification of control equipment, related time schedules, emission limitations subject to notice and opportunity for hearing, or any special studies conducted, as necessary to attain the objectives of Chapter 403, Florida Statutes.

All other modifications shall be made in accordance with Section 403.516, Florida Statutes.

XIII. CONSTRUCTION

ant to the design standards concepts presented in the application and the standards in these conditions of certification, as amended.

[Comment: These Conditions modify our application to a great extent. For example, acid gas scrubbers. Some parts of the application were not Vendor specific.]

A. Control Measures

1. Stormwater Runoff

To control runoff during construction which may reach and thereby pollute waters of the State, necessary measures shall be utilized to settle, filter, treat or absorb silt-containing or pollutant-laden stormwater to insure ensure against spillage or discharge of excavated material that may cause turbidity in excess of 29 Nephelometric Turbidity Units above

background in Waters of the State. 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. pH shall be kept within the range of 6.0 to 8.5. The permittee shall comply with Florida Administrative Code Chapters 17-25 and The permittee shall complete the forms required by 17-25.09(1) and submit those forms and the required information to the South Florida Water Management District for approval no later than 120 60 days prior to start of construction including design drawings indicating flow drainage plans during facility construction and operation submitted to SWFWMD and the department's District Office. To prevent the discharge of turbid water (greater than 29 NTU's above background) from the site during construction, a temporary berm with 3H:1V side slopes and an elevation of +95 ft. NGVD shall be constructed around resource recovery site (except for the landfill areas and the road past the Fort Lauderdale compost plant) commencement of work on the facility.

2. Burning

Open burning in connection with land clearing shall be in accordance with Chapter 17-5, FAC, and Uniform Fire Code Section 33.101 Addendum. No additional permits shall be required, but prior to—each—act of burning, the Division of Forestry shall be contacted to determine if satisfactory condi-

tions exist for burning. Open burning shall not occu :f the Division of Forestry has issued a ban on burning due ... fire hazard conditions.

3. Sanitary Wastes

Disposal of sanitary wastes from construction toilet facilities shall be in accordance with applicable regulations of the appropriate local health agency.

4. Solid Wastes

Solid wastes resulting from construction shall be disposed of in accordance with the applicable regulations of Chapter 17-7, FAC.

5. Noise

Construction noise shall not exceed local noise ordinance specifications, nor those noise standards imposed by zoning.

6. Dust

The County Permittee shall employ proper dust-control techniques to minimize fugitive dust emissions.

7. Transmission Lines

The directly associated transmission lines from the Resource Recovery Facility electric generators to the existing Florida Power and Light Company substation shall be cleared, maintained and prepared without the use of herbicides.

8. Restoration/Revegetation

Broward County shall submit a restoration/revegetation plan for the wetlands areas identified in section 3.2.3 of the application to the Department for evaluation and approval. The plan shall include the commencement and completion dates of all anticipated restoration/revegetation work, dredge and fill volumes, elevations, methods of construction and planting schedules, pumping schedules and methods to ensure vegetative survival for each area.

9. Conservation Easement

Before Within sixty days of issuance of the certification and prior to the commencement of any activities construction on the landfills herein authorized, the Permittee County shall file and have recorded, in the same manner as any other instrument affecting the title to real property, a conservation easement pursuant to Section 704.06, Florida Statutes, in the office of the Clerk of the Circuit Court, Broward County for the following areas:

- a. Site No. 1, 18 acres in Section 27 30, Township 50 South, Range 41 42 East;
- b. Site No. 2, 15 acres in Section 27 19,
 Township 50 South, Range 4± 42 East;
- c. Site No. 3, 16 acres (Hacienda Flores) Section-19, Township 50 South, Range 42 East;
- d. Site No. 4, 15 acres (Tree Tops Park), Section 29, Township 50 South, Range 41 East;

- e. Site No. 5, 74 acres, Section 26, Township 50 South, Range 39 East and;
- f. The 15 acre riverine restoration area adjacent to the resource recovery facility in Section 25, Township 50 South, Range 41 East, Broward County.

The Permittee County shall pay all recording fees. The conservation easement shall be in favor of the Department of Environmental Regulation and shall restrict any activity including dredging and filling of land, cutting, eradicating or pruning of endemic vegetation beyond the scope of the approved restoration plan indicated in Condition No. \(\frac{1}{2}\) XII.A.8. A draft conservation easement and a certified survey with a legal description shall be submitted to the Bureau of Permitting in Tallahassee for review and approval before it is filed (by the Permittee) with the Clerk of the Circuit Court, Broward County.

[Comment: This condition should itself be conditioned on the giving of appropriate title to the required land by the District or the Board of Trustees of the Internal Improvement Trust Fund.]

10. Written Notice

Written notice from the Department indicating that Conditions Nos. XII.A. 8 and 9 have been satisfied shall be obtained by Broward County prior to the beginning any construction on the landfill site. All work in the restoration sites shall be completed within one year of commencement of construction on the landfill site.

11. Time Limitations

If the proposed work within the jurisdictional area has not been completed within 5 years of the date of certification, a permit application shall be resubmitted to the Department for evaluation and shall be accompanied by the appropriate fee.

12. Monitoring

The following surface water monitoring program shall be implemented during construction for:

Parameter: Dissolved oxygen, temperature (C°), pH, total and fecal coliform bacteria, and benthic macroinvertebrates, iron, lead, copper, mercury, cadmium, zinc, and silver.

Frequency: Quarterly throughout the year except that the samples shall be collected monthly for April, June, August and September. Sampling shall continue for a period of 5 years. Sampling shall begin at least 30 days prior to initial construction for background levels. Thereafter, sampling shall be initiated within 2 months of beginning operation of the facility. All samples, except benthic macroinvertebrates, shall be taken for a 24 hour period, at 4 hour intervals beginning one hour before sunrise. Benthic macroinvertebrates shall be taken once each sampling period.

[Comment: This is construction monitoring. Operation monitoring appears in Condition XIV.D.]

Sampling:

Locations: 150 meters downgradient from the retention pond discharge point in the river at the surface, mid-depth and 1 ft. above the bottom. This location will be called sampling points D (downgradient) and E (upgradient). [Exhibit should be attached and made a part of Conditions.]

Parameter: Fron, Lead, copper, mercury, cadmium, zine, and silver.

Frequency: Quarterly throughout the year except that the samples shall be collected monthly for April, June, August and September. Sampling shall continue for a period of 5 years. Sampling shall begin 30 days prior to initial construction for background levels. Thereafter, sampling shall be initiated within 2 months of beginning operation of the facility. All samples shall be taken for a 24 hour period, at 4 hour intervals beginning one hour before sunrise.

Analyses:

Water quality analyses should be performed at detection levels commensurate with water quality criteria for Class III waters (F.A.C. rule 17-3.121).

If a violation occurs for any sampled parameter, the <u>Permittee</u> permittee shall, after notifying the <u>Department</u>, institute corrective action to abate the violation <u>if</u> it is the

result of activities of the Permittee. Corrective action may include modifications to the types of waste collected in the landfill, the methods of disposal or physical modifications to the landfill or resource recovery plant. Additionally, corrective action could also include further monitoring to determine the extent and degree of violation. Any modifications shall be coordinated with the Bepartment's Solid Waste Section in West Falm Beach District Office. Department approval shall be obtained prior to any action constituting a modification of this permit.

[Comment: This refers to activities during construction. At that time, no waste is going into the landfill.]

All monitoring reports shall be submitted to the Bureau of Permitting; in Tallahassee, and the Southeast Fforida District Office, and the South Florida Water Management District (SFWMD or District), West Palm Beach, under a cover letter containing the following information: (1) permit number; (2) handling, storage and analysis of the samples; (3) a map indicating the sampling locations; and (4) a statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection and accuracy of the data. Monitoring reports shall also include the following information for each sample that is taken:

(1) time of day samples taken;

- (2) depth of water body;
- (3) depth of sample;
- (4) antecedent weather conditions;
- (5) tidal stage and direction of flow; and
- (6) wind direction and velocity.

Monitoring reports shall be submitted to the Department within 2 weeks of completion of analysis for each sampling period.

13. Protection of Vegetation

The <u>Permittee</u> certification-holder shall develop the site so as to retain endangered and threatened plants, or replant these plants in another suitable environment. Any endangered or threatened plants should be staked in the field or relocated, as appropriate, prior to commencement of any construction or site preparation activities.

14. Dewatering Operations

There shall be no dewatering operations during construction without approval of SFWMD. Such approval may be obtained by submitting an application to SFWMD at least $90 \ \underline{30}$ days prior to start of dewatering operations. Any discharge of water from dewatering operations shall not violate water quality standards.

B. 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.

[Comment: Even with the changes suggested, the County has serious reservations about the vagueness of this language. Who shall determine the content of the program and qualifications of the "qualified person"?]

If unexpected or harmful effects or evidence of irreversible environmental damage not anticipated by the application or the evidence presented at the certification hearing are detected during construction, the Permitted permittee shall notify the BER Southeast Piorida District Office as required by Condition II.7 Post Office Box 38587 3301 Gun Club Road7 West Palm Beach7 Piorida7 33402-38587 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 conditions7 and shall provide in writing an analysis of the problem and a plan to eliminate or significantly reduce the harmful effects of damage:

C. Reporting

1. Notice of commencement of construction shall be submitted to the Southeast Florida District office of the BER within 15 days of-initiation. Starting three (3) months after certification construction commences, a quarterly construction status report shall be submitted to the Southeast Florida District Office. of the Department of Environmental Regulation of

the BER. The report shall be a short narrative describing the progress of construction.

2. Upon completion of construction the BER Southeast Florida District Office will be notified in order that a pre-operational inspection can be performed in accordance with Condition V, no later than seven days after receipt of the notice.

[Comment: Do these requirements apply to post-operation continuing construction for subsequent landfill cells? If so, section C.2 should be elaborated.]

XIV. OPERATION

A. Air

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The operation of the Resource Recovery Facility shall be in accordance with all applicable provisions of Chapter 17-2, 17-5, and 17-7, Florida Administrative Code. In addition to the foregoing, the <u>Permittee</u> permittee shall comply with the following specific conditions of certification:

- 1. Emission Limitations upon Operation of Units 1-3
- a. Stack emissions from each unit shall not exceed the following:
 - (1) Particulate matter: $\theta \cdot \theta \cdot 5 = 0.03$ grains per standard cubic foot dry gas corrected to 12% CO_2 .*
 - (2) SO_2 : θ -31 lbs \neq MBtu 30 day rolling average, not to exceed θ -62 0.55

-1b/MBtu.----- 17 -

- (3) Nitrogen Oxides: 0.56 lbs/MBtu MSW charged.
- (4) Carbon Monoxide: 0.09 lbs/MBtu.
- (5) Lead: $\theta = \theta = \theta = \frac{0.003}{1}$ lbs/MBtu.
- (6) Mercury: 3200 grams/day for the entire facility when firing sludge. Compliance shall be determined in accordance with 40 CFR 617 Method 1017 Appendix Br 0.00092 lbs/MBtu.
- (7) Odor: there shall be no objectionable odor at the site boundary.
- Visible emissions: opacity shall be no (8) greater than 15% except that visible emissions with no more than 20% opacity may be allowed for up to three consecuin any one hour except tive minutes when during start up or upsets of 17-2.250, FAC, shall provisions Opacity compliance shall apply. demonstrated in accordance with Florida Rule 17-Administrative Code 2.700(6)(a)9.,_DER Method 9._
- (9) Fluoride: θ-θθ22 0.018 lb/MBtu.
- (10) Beryllium: 9.3xE-7 lb/MBtu.
- (11) VOC: 0.013 lb/MBtu.

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- (12) Sulfuric Acid Mist: $\theta = \theta = \theta = \frac{0.047}{7}$ lb/MBtu.
- b. The height of the boiler exhaust stack shall not be less than 195 feet above grade.
- c. The incinerator boilers shall not be loaded in excess of 115% of their rated nameplate capacity of 627500 pounds of MSW 281 x 10^6 MBtu per hour each. $\frac{1}{2500}$ MBtu $\frac{1}{2500}$ MB
- d. The incinerator boilers shall have a metal nameplate affixed in a conspicuous place on the shell showing manufacturer, model number, type waste, rated capacity and certification number.

[Comment: To what does this "certification number" refer?]

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for the limitations Compliance with particulates, sulfur oxides, nitrogen oxides, carbon monoxide, fluoride, sulfuric acid mist, VOC and lead shall be determined in accordance with Florida Administrative Code Rule 17-2.700, DER Methods 1, 2, 3, and 40 CFR 60, Appendix A, Methods 5, 7, 8, 10, The stack test for each unit shall be 12, 13A or 13B and 25. performed at +10% of the nominal heat input rate of $970 \frac{281}{281} \times 10^6$ Btu per hour. Compliance with the beryllium emission limitation shall be determined in accordance with 40 CFR 61, Method 103 or Particulate testing shall include one run 104, Appendix B. during representative soot blowing which shall be Visible proportionally to normal daily operations. emission

testing shall be conducted simultaneously with soot blowing and non-soot blowing runs.

[Comment: 1) How are we to prove compliance with the limit for sulfuric acid mist? 2) Test methods for all pollutants are not specified. We suggest Federal Register methods be incorporated except for VOC and sulfuric acid mist. Federal Register methods for these pollutants are inappropriate for refuse-fired facilities; methods should be submitted by permittee for approval by DER.]

2. Emissions Control Equipment

- a. The particulate emission control device shall be designed and constructed to achieve a maximum emission rate of 0.03 grains per dscf corrected to 12% CO_2 .
- b. The flouride and sulfuric acid mist gas controls system shall be designed to remove at least 90% of the maximum projected inlet concentrations:
- Department within thirty (30) days after it becomes available, copies of technical data pertaining to the selected emissions control systems. These data should include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters. The Bepartment may, upon review of these data; disapprove the use of any such device if the Bepartment determines the selected control device to be inadequate to meet the emission limits specified in 1:a: above: Such disapproval shall be issued within thirty (30) days of receipt of the technical data. The

data shall be processed and approved or denied in accordance with F.S. 120.60.

- 3. Air Monitoring Program
- The Permittee permittee shall install and operate continuously monitoring devices for flue gas oxygen and The monitoring devices shall meet the applicable requirements of Chapter 17-2, Section 17-2.710, FAC, and 40 CFR 60.45, and 40 CFR 60.13, including certification of each device accordance with 40 CFR 60, Appendix B, Performance Specifications. Certification shall be conducted annually from monitoring equipment initial certification-Data on specifications, manufacturer, type, calibration and maintenance needs, and location on the stack after the economizer or after the ESP, for the testing of opacity shall be provided to the Department for approval prior to installation.
- b. The <u>Permittee</u> <u>permittee</u> shall provide sampling ports into the <u>in the ESP outlet duct or</u> stack and shall provide access to the sampling ports in accordance with Section 17-2.700(4), FAC. Drawings of stack testing facilities as required by Section 17-2.700(4) shall be submitted to the <u>Department</u> for approval at least 120 days prior to construction of the stack- sampling ports.
- c. The <u>Permittee</u> permittee shall have a sampling test of the stack emissions and the fluoride and acid gas control system removal efficiencies performed by a commercial testing

firm within 90 ± 180 days of the start of operation of the boilers and annually from the date of testing thereafter.

4. Reporting

- emissions tests shall be submitted within forty-five thirty days of the testing receipt to the BER Southeast Florida District Office. An additional copy shall shall be submitted to the Broward County Environmental Control Board.
- b. <u>Emissions</u> Stack monitoring shall be reported to the DER Southeast District Office on a quarterly basis in accordance with Section 17-2.710, FAC, and 40 CFR, Part 60, Subsection 60.7.
- c. Notice of anticipated and actual start-up dates of each incinerator boiler shall be submitted to the DER Southeast Florida District Office.

B. Fuel

The Resource Recovery Facility shall utilize refuse such as garbage and trash (as defined in Chapter 17-717, FAC) as its fuel. Use of alternate fuels except for natural gas in start-up burners would necessitate modification of these Conditions of Certification. Refuse as fuel shall not include "hazardous waste" as defined in Chapter 17-30, FAC.

C. Wastewater Disposal

Plans, drawings and specifications for leachate collection systems, pumps, lift stations, sewage collection systems, and wastewater collection systems shall be furnished to the Department for approval at least \$20.60 days prior to start of construction. Also plans and specifications for off-site sewage and wastewater transmission systems shall be furnished to the Department and the Broward County Environmental Quality Control Board for approval \$120 days prior to construction:

[Comment: We will not be installing any offsite lines. Fort Lauderdale is already installing the necessary lines. We will simply connect to existing lines on the site.]

D. Water Discharges

1. Surface Water

- a. Any discharges from the site stormwater system via the emergency overflow structures which result from an event LESS than a ten-year, 24-hour storm (as defined by the U.S. Weather Bureau Technical Paper No. 40, or the DOT drainage manual, or similar documents) shall meet State Water Quality Standards, Chapter 17-3, FAC, the Standards of Chapter 17-25, FAC, and Chapter 40E.2 and 40E.4, FAC.
- b. Sampling of water quality in the South Fork

 New River Canal shall be performed monthly at stations A, D, F,

 and G as shown on Figure 2.3.4.1. of the application. The

sampling shall commence upon the start of operation. The results of the sampling shall be reported to the department's Southeast District Office quarterly for the following parameters:

DO	Copper	Cadmium
BOD	Nitrates	Iron
TSS	Nickel	Lead
Oil and Grease	рН	COD
7inc	Mercury	Temperatur

Benthic Macroinvertebrates (quarterly)

Fecal coliform bacteria Total coliform bacteria

2. Groundwaters

a. All discharges to groundwaters, such as land-fill leachate, shall be collected and treated as necessary, or otherwise be of high enough quality, to be able to meet the Water Quality Standards of Sections 17-3.402 and 17-3.404, FAC, at the boundary of the site.

3. Groundwater Monitoring Program

a. Sampling of the shallow aquifer groundwater quality shall be conducted in at least six well clusters in the site vicinity. At least one of the these wells shall be up hydrologic slope from the landfill area to provide current background data. Other wells shall be located down hydrologic slope from the landfill areas. Specific location of these wells and the monitoring program may be proposed by the applicant, but must

be approved by the Department at least fourteen months fior to start of operation of the facility.

Operational background monitoring shall commence at least one year prior to operation of the resource recovery facility. Construction of monitoring wells and the collection of samples shall be in accordance with EPA recommended methods as contained in Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities (EPA/530/SW-611). The wells shall be deep enough to ensure that groundwater samples can be obtained with the groundwater table elevation at estimated lowest point and shall be protected from damage and Samples shall be analyzed in accordance with the destruction. methods described in Chapter 17-4, FAC. Analyses shall be performed by laboratories which are approved by the Department of Health and Rehabilitative Services to conduct analysis pursuant 403.863, F.S., the State Public Water Section Laboratory Certification Program.

c. The wells shall be monitored on a quarterly basis for the following parameters:

Conductivity	Arsenic	Selenium	Sulfate		
Nitrates	Barium	Silver	Manganese		
Iron	Cadmium	Chlorides	TDS		
COD	Chromium	рН	Sodium		
Nickel	Lead	Copper	Zinc		
Aluminum	Mercury				
Total Coliform Bacteria					

- d. 4. Reports shall be submitted in duplicate within 30 days of receipt of analysis results to the Bepartment District Office for distribution to the appropriate review personnel.
- e: 5. The monitoring program may be reviewed annually by the Department, and a determination made as to the necessity and extent of continuation of the program. Aspects of the program related relation to sampling, monitoring, reporting, and related time schedules may be modified in accordance with the provisions of conditions number XII.

E. Solid/Hazardous Waste

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- 1. Operation of the associated landfill shall be done in accordance with all applicable portions of Chapter 17-7, FAC, including prohibitions, procedures for closing of the landfill, and final cover requirements, or, as provided in this condition (XIV.E.) in its entirety. The plans of the final landfill design shall be provided to the Department for review and approval at least 180 days prior to start of operation.
- 2. No hazardous, toxic, or pathological wastes shall be burned or landfilled at the site.
- 3. Rodent and insect control shall be provided as necessary to protect the health and safety of site employees and the public. Pesticides used to control rodents, flies, and other vectors shall be as specified by the Florida Department of Agriculture and Consumer Services.

- 4. A monthly report shall be prepared detailing the amount and type (putrescible, special wastes, boiler residue, etc.) of materials landfilled at the site, and the treatment provided (see conditions XIV.E.2 above). These reports shall be furnished to the BER Southeast District Office quarterly, commencing 120 days after the Resource Recovery Facility becomes operational and is producing residues.
- 5. Unless approved by the Department with subsequent modification of conditions, this facility shall not accept materials currently defined as "Hazardous Wastes", i.e., pesticides, volatile or radioactive material, etc.
- drainage to a low end of the cell; all leachate formed at the low end of active shall be collected for transmission and leachate formed in or inactive cells containing waste materials shall be pumped to the collection system for transmission to a treatment system. Leachate collected above the primary liner shall be monitored monthly for conductivity, pH, copper, arsenic, zinc, oil and grease and total organic halogens. Results of such monitoring shall be reported to the operator of the receiving municipal sewage treatment plant and the District Manager. Leachate collected between the primary and secondary liners shall be monitored quarterly for conductivity, chlorides, ammonia, iron, sulfur, nitrates, and zinc. Results will be reported to the District Manager within 30 days. *

[Comment: This revision moves the footnote into the text, to reflect the logical continuity of the content.]

7. A chemical analysis of the boiler residue including EP toxicity shall be conducted within 30 days after commencement of commercial operation, testing at the minimum detectable levels for Cadmium, Chromium, dioxins, Mercury, pesticides, Zinc and Lead to determine the nature and potential toxicity or hazardousness of the residue materials. ereated in the combustion process:

[Comment: Dioxins and Zinc are not part of the EP toxicity test, and there is no good reason to include them. We are also unclear about what "minimum levels" means.]

- 8. Results from the residue analysis shall immediately be sent to the Bepartment and District Office within 30 days of receipt. Results will be used to determine whether or not these materials constitute a "Hazardous Waste" as defined by Chapter 17-30, FAC; results of these analyses may also be used for correlation with groundwater monitoring information and in any subsequent modification of conditions.
- 9. If residue materials are determined to be a "Hazardous Waste", then measures shall be taken to treat or dispose of the residues pursuant to rule promulgated by either Federal or State authorities.

- 10. If the nature of materials received at the facility becomes altered, either due to modification of conditions, i.e., the facility is allowed to incinerate already known hazardous wastes such as pesticides, or if groundwater monitoring reveals deleterious effects on unusual groundwater conditions which may be attributable to the landfilling of this residue, then a subsequent analysis may be required at that time.
- 11. There shall be no discharge to the environment of polychlorinated byphenyl compounds.
- Department's District Office with a set of full-sized plans for the operational and closure phases of the project <u>landfill</u> for review and approval at least 90 days prior to implementation of those phases. Within 90 days after completion of construction the closure phase of the project, the <u>Permittee permittee</u> shall submit certified as-built plans signed and sealed by a Florida Registered Professional Engineer.
- throughout the cell, the liners will be installed either by the manufacturer or by a competent experienced lining contractor according to the manufacturer's specifications. In addition, as part of quality control measures, field seams between in-place liner and newly installed liner will be tested according to ASTM specifications to insure integrity between materials.

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F. 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. The safety standards specified under Section 440.56, Florida Statutes, by the Industrial Safety Section of the Florida Department of Commerce will be complied with during operation.

G. Transmission Lines

The directly associated transmission lines from the Resource Recovery Facility electric generators to the Florida Power and Light Company Substation shall be kept cleared without the use of herbicides.

H. Noise

Operational noises shall not exceed local noise ordinance limitations nor those noise standards imposed by zoning.

I. Water Consumption

No groundwater may be used for cooling water.

XV. WATER MANAGEMENT DISTRICT CONDITIONS - GENERAL

A. The County/Vendor and the Permittee shall prosecute the --work authorized under the Certification in a manner so as to minimize any adverse impact of the works on fish, wildlife, natural environmental values, and water quality. The

County/Vendor and the Permittee shall institute necessar measures during the construction period, including ful compaction of any fill material placed around newly installe structures, to reduce erosion, turbidity, nutrient loading ar sedimentation in the receiving waters.

- B. Water quality data required by the BER this Certification for the surface water management system shall be submitted to the District. Parameters to be monitored include but are not limited to those listed in Chapter 17-3 and 17-4, F.A.C. I water quality data is required by the Department, the County/Vendor and the Permittee shall provide such data to the District on volumes of water discharged, including total volumes discharged during the days of sampling and total discharges from the property or into surface waters of the state.
- System authorized under this Certification shall not become ffective until a Florida registered professional enginest certifies upon completion of each phase that these facilities have been constructed in accordance with the design approved the District. Within 30 days after completion of construction ceach phase, the County/Vender and the Permittee shall submit the engineer's certification, and notify the District that the facilities are ready for inspection and approval.

[Comment: Define "operational phases."]

- D. All roads shall be set at or above the elevation acceptable to Broward County, per Ordinance 85 81-16, as may be amended.
- E. All building floors shall be set at or above elevations required by Broward County, per Ordinance 85 81-16, as may be amended.
 - F. Off-site discharges during construction and development shall be made only through the discharge structures authorized by this Certification.

[Comment: The language is unclear, failing to identify the "discharge structure" so authorized.]

G. No construction authorized herein shall commence until the Vendor Permittee has agreed, in writing, that it will be responsible for the construction, operation, and maintenance of the entire surface water management system for the certified the entire surface water management system for the certified the entire surface water management system for the certified the entire surface water management system for the certified the entire surface water management system.

- H. No construction authorized herein shall commence until the County has agreed, in writing, by letter or resolution, that it will be responsible for the construction, operation, and perit will be responsible for the surface water management system, petual maintenance of the entire surface water management system, both during operation of the facility and following the closure both during operation of the facility.
 - I. This Certification is based on the applicant's submitted information to the District which reasonably demonstrate

that adverse off-site water resource related impacts will not be caused by the authorized activities. The plans, drawings, and design specifications submitted to the applicant shall be considered the minimum standards for compliance. It is also the responsibility of the County/Vendor and the Permittee to ensure that adverse off-site water resource related impacts do not occur during construction.

- J. The County/Vendor and the Permittee shall secure a well construction permit prior to construction, repair, or abandonment of any wells as described in Chapter 40E-3, F.A.C.
- K. In the event of a declared water shortage, water use reductions will be ordered by the District in accordance with the Water Shortage Plan, Chapter 40E-21, F.A.C.
- L. This project must be constructed in compliance with and meet all requirements set forth in Chapter 373, Florida Statutes, and Chapters 40E-2, 40E-3, and 40E-4, F.A.C.
- M. The County/Vendor and the Permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, operation, maintenance or use of any facility authorized by this Certification.

M. The County shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, operation, maintenance or use of any facility authorized by this Certification, to the extent permitted under Florida law.

N. The Vendor shall hold and save the District harmless from any and all damages, claims, or liabilities caused by the Vendor's negligence which may arise by reason of the construction, operation, maintenance or use of any facility authorized by this Certification.

O.N. Authorized representatives of the District shall be allowed to enter the premises to inspect and observe the operation of the surface water management system and associated landfill facilities, mitigation areas, and monitoring wells in order to determine compliance with the conditions of this Certification, as provided in Condition V.

XVI. WATER MANAGEMENT DISTRICT - SITE SPECIFIC STANDARDS

- A. Prior to construction of either the Solid Waste Energy Resource Recovery Facility or the ash residue/unprocessable materials landfill, a complete set of paving, grading, and drainage plans with supporting calculations must be submitted to the South Florida Water Management District, for a determination of compliance with Chapter 40E-2 and 40E-4, F.A.C. Said plans shall include the following:
- 1. Paving, grading and drainage plans with special attention to perimeter site grading; and
 - 2. Drainage calculations including:
- a. Design storms used including depth, duration and distribution;
 - b. Off-site inflows;

- c. Stage-storage computations for the proj and stage-discharge computations for the outfall structure(s)
- d. Acreages and percentage of property propass:
 - (1) impervious surfaces (excluding v
 bodies;
 - (2) pervious surfaces (green areas);
 - (3) lakes, canals, retention areas, etc
 - (4) total acreage of the project:
- e. Runoff routing calculations showing charges, elevations, and volumes detained during applicable events; and
- f. Calculations required for determinati minimum building floor and road elevations.
- B. Any further <u>Subsequent</u> modifications to the dr and supporting calculations submitted to the South Florida Management District shall be pursuant to Section 403.516, and Rule 17-17.211, F.A.C., and shall be submitted to the trict for a determination that the modifications are in ance with Chapters 40E-2 and 40E-4, F.A.C.
- C. Depending on the calculations submitted, water assurances must be provided for stormwater runoff f portions of the landfill(s) which do not have final cover
- D. District permits (Water Use and Surface Water ment) may be required for off-site mitigation areas and

sidered by this agency for permitting purposes as separate from this Certification.

- E. Prior to the District declaring any easements as surplus, the following must have been met:
- 1. The District has reviewed and is satisfied with the detailed mitigation plans for the lands within the South New River Canal right of way; and
- 2. Broward County must enter into a Memorandum of Understanding with the District regarding future maintenance of the canal in the event that flow restrictions result from the facility.
- F. In the event the District does not declare as surplus all of its properties which the applicant proposes to use, connect to, or cross over, such use, connection, or crossing must meet the District's criteria for the issuance of a right-of-way permit, found in Chapter 40E-6, F.A.C.
- G. There shall be no on-site withdrawal of groundwater or dewatering, unless the following conditions are met:
- 1. Withdrawal rates, well construction details, well locations, and the data from the long term groundwater monitoring network are provided to the District;
- 2. The impacts of the proposed withdrawals are assessed and provided to the District;
- 3. No dewatering discharge shall be allowed to drain to tidal waters; and

- 4. The District concurs that there will be no adverse impacts as a result of the proposed withdrawals.
- H. Final water use rates for process and irrigation shall be submitted to the District when a vendor and the final plant design are is determined.
- I. Pursuant to Chapter 17-7, F.A.C., a closure plan shall be submitted to the District. In addition, the plan shall contain information on irrigation demands and sources for the grassed/vegetation areas.
- J. If not provided pursuant to Site Specific Standard No. 2, retention/detention requirements contained in the Basis of Review for Surface Water Management Systems (40E.4034(1)(a)) for water quality enhancement must be provided to the District prior to the construction of Phase Landfill Cell II.

[Comment: Please clarify what is meant by the reference to "construction of Phase II"]

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- K. Additional filtration for enhancement of stormwater should be provided by discharging through spreader mechanisms into the on-site wetland mitigation areas.
- L. Discharge structures shall include a baffle, skimmer, or other mechanism suitable for preventing oil, grease, or other floatable materials from discharging to and/or from retention/detention areas.
- M. The Vendor Permittee shall install screw gates on water control structures capable of restricting discharge of poor

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quality surface water and, prior to construction, shall submit the location of these screw gates to the District.

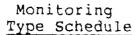
- N. The Vendor <u>Permittee</u> shall stabilize critical areas, including the conveyance and perimeter swales, and areas adjacent to the let down pipes to prevent erosion.
- O. Energy dissipators shall be used whenever let down pipes discharge into perimeter swales, or the let down pipes meet the terraces.

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Water quality samples shall be taken at the discharge Р. structure locations of the water management system during periods of discharge according to the schedule below. Flow shall be sample collection and the surface measured at the time of elevation of the water shall be provided. A laboratory certified by the State of Florida shall be responsible for all water. Reports shall be submitted to quality sampling and analyses. Monitoring requirements this District on a semi-annual basis. will be evaluated by this District following two years of data collection.

[Comment: Because there will be more than one overflow location and a lengthy series of filtration terms, better identification of the sample point would help.]



Parameters

A. General (Quarterly)

Addition of the same and the sa

- Total Organic Carbon, Dissolv Oxygen, pH, Turbidity, Spect Conductance, Chemical Oxy Demand, Alkalinity, Total pended Solids.
- B. Organics (Semi-annual)

Trichloroethylene, Tetrachlor Ethylene, Carbon Tetrachlor Vinyl Chloride, 1,1,1-Trichl ethane, 1,2,-Dichloroeth Benzene, Ethylene, Dibromide

C. Metals
 (Semi-annual)

Aluminum, Antimony, Beryllic Cadmium, Copper, Cyanide, Lead, Mercury, Nickel, Sele: Silver, and Zinc.

- Q. The District also recommends that two addit shallow groundwater monitoring well clusters be added to come the groundwater monitoring network. The two well clusters include an upgradient well cluster, west of the resource receptacility, and a down gradient well cluster, between the receivery facility and the South New River. The wells shown onitored according to the provisions of Condition XIV.D.3.
- R. Prior to the commencement of construction, the Distaff must have received and reviewed any pertinent addinformation required to be submitted under the District specific standards and the conditions of certification, $\hat{\epsilon}$ issue a written approval for the desired constructions.

XVII. OPERATIONAL CONTINGENCY PLANS

At Operating Procedures

The permittee shall develop and furnish the Southeast Plorida District Manager Office a copy of written operating instructions for all aspects of the operation which are critical to keeping the facility working properly.

B. Contingency Plans

The <u>Permittee</u> permittee shall develop and furnish the Southeast Piorida District Manager <u>Office</u> written contingency plans for the continued operation of the system in <u>the</u> event of breakdown. Stoppages which compromise the integrity of the operations must have appropriate contingency plans. Such contingency plans should identify critical spare parts to be maintained on site.

C. Current engineering Plan

The <u>Permittee</u> permittee shall maintain a complete set of "as-built" and modified engineering plans and documents in order to facilitate the smooth acquisition or fabrication of spare parts or mechanical modifications.

D. Application Modifications

The <u>Permittee</u> permittee shall furnish appropriate modifications to drawings and plot plans <u>submitted</u> as part of the application, including design plans for isolation and containment of hazardous wastes.

Er Operating Budgetr

The permittee and Broward County should develop an operation budget that provides sufficient income from reasonable tipping fees, electric power sales, sales of recovered materials or other income producing items to operate the facility in an environmentally safe manner. If the permittee and the county cannot agree on an adequate financial plan, either party may petition the Siting board for a hearing on this plan. The Siting Board may delegate the matter to the Bivision of Administrative Hearings for hearing purposes. The operating budget plan shall be updated periodically as economic conditions may warrant:

State of Florida Department of Environmental Regulation South Broward County Resource Recovery Facility Case No. PA 85-21 CONDITIONS OF CERTIFICATION

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State of Florida South Broward County Resource Recovery Facility Case No. PA 85-21 CONDITIONS OF CERTIFICATION

I. 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 or supplemental application pursuant to Chapter 403, Florida Statutes.

II. NON-COMPLIANCE NOTIFICATION

If, for any reason, the permittee does not comply with or will 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 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.

III. 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. Such systems are not to be bypassed without prior Department approval. Operational stoppages exceeding 30 minutes are to be reported as specified in Condition II. Operational malfunctions which do not stop operation but prevent correct operation or which will compromise the integrity of the operation shall be reported to the District Manager in writing within 72 hours.

IV. 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 discharge.

V. RIGHT OF ENTRY

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

- A. 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
- B. To have access to and copy any records required to be kept under the conditions of this certification, and

- C. To inspect and test any monitoring equipment or monitoring method required in this certification and to sample any discharge or pollutants, and
- D. To assess any damage to the environment or violation of ambient standards.

VI. REVOCATION OR SUSPENSION

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

VII. CIVIL AND CRIMINAL LIABILITY

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.

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.

VIII. PROPERTY RIGHTS

The issuance of this certification does not convey any property rights in either real or personal property, nor 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.

IX. 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.

X. DEFINITIONS

The meaning of terms used herein shall be governed by the definitions contained in Chapter 403, Florida Statutes and any regulations adopted pursuant thereto. In the event of any dispute over the meaning of a term 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.

XI. 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 purpose 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.

XII. MODIFICATION OF CONDITIONS

Pursuant to Subsection 403.516(1), F.S., the Board

hereby delegates the authority to the Secretary to modify any condition of this certification dealing with sampling, monitoring, reporting, specification of control equipment, related time schedules, emission limitations subject to notice and opportunity for hearing, or any special studies conducted, as necessary to attain the objectives of Chapter 403, Florida Statutes.

All other modifications shall be made in accordance with Section 403.516, Florida Statutes.

XIII. CONSTRUCTION

The facility shall be constructed, as a minimum, pursuant to the design standards presented in the application, or as indicated by the applicant in subsequent correspondence. The applicant shall present upon request all facility plans for approval by the Southeast District Office of the Department prior to construction.

A. Control Measures

1. Stormwater Runoff

To control runoff during construction which may reach and thereby pollute Waters of the State, necessary measures shall be utilized to settle, filter, treat or absorb silt-containing or pollutant-laden stormwater to insure against spillage or discharge of excavated material that may cause turbidity in excess of 29 Nephelometric Turbidity Units above background in Waters of the State. 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. The permittee shall comply with Florida Administrative Code Chapters 17-25 and 40E-4. The permittee shall complete the forms required by 17-25.09(1) and submit those forms and the required information to the South Florida Water

Management District for approval no later than 120 days prior to start of construction including design drawings indicating flow drainage plans during facility construction and operation submitted to SWFWMD and the department's District Office. To prevent the discharge of turbid water (greater than 29 NTU's above background) from the site during construction, a temporary berm with 3H:1V side slopes and an elevation of +9 ft. NGVD shall be constructed around the resource recovery site prior to commencement of work on the facility.

2. Burning

Open burning in connection with land clearing shall be in accordance with Chapter 17-5, FAC, and Uniform Fire Code Section 33.101 Addendum. No additional permits shall be required, but prior to each act of burning, the Division of Forestry shall be contacted to determine if satsifactory conditions exist for burning. Open burning shall not occur if the Division of Forestry has issued a ban on burning due to fire hazard conditions.

3. Sanitary Wastes

Disposal of sanitary wastes from construction toilet facilities shall be in accordance with applicable regulations of the appropriate local health agency.

4. Solid Wastes

Solid wastes resulting from construction shall be disposed of in accordance with the applicable regulations of Chapter 17-7, FAC.

5. Noise

Construction noise shall not exceed local noise ordinance specifications, nor those noise standards imposed by zoning.

6. Dust

The County shall employ proper dust-control techniques to minimize fugitive dust emissions.

7. Transmission Lines

The directly associated transmission lines from the Resource Recovery Facility electric generators to the existing Florida Power and Light Company substation shall be cleared, maintained and prepared without the use of herbicides.

8. Restoration/Revegetation

Within 60 days of permit issuance, the permittee shall submit a restoration/revegetation plan for the wetlands areas identified in section 3.2.3 of the application to the Department for evaluation and approval. The plan shall include the commencement and completion dates of all anticipated restoration/revegetation work, dredge and fill volumes, elevations, methods of construction and planting schedules, pumping schedules and methods to ensure vegetative survival for each area.

9. Conservation Easement

Within sixty days of issuance of the certification and prior to the commencement of any activities herein authorized, the Permittee shall file and have recorded, in the same manner as any other instrument affecting the title to real property, a conservation easement pursuant to Section 704.06, Florida Statutes, in the office of the Clerk of the Circuit Court, Broward County for the following areas:

- a. Site No. 1, 18 acres in Section 27, Township 50 South, Range 41 East;
- b. Site No. 2, 15 acres in Section 27, Township 50 South, Range 41 East;
- c. Site No. 3, 16 acres (Hacienda Flores) Section 19, Township 50 South, Range 42 East;
- d. Site No. 4, 15 acres (Tree Tops Park), Section 29, Township 50 South, Range 41 East;
- e. Site No. 5, 74 acres, Section 26, Township 50 South, Range 39 East and;
- f. The 15 acre riverine restoration area adjacent to the resource recovery facility in Section 25, Township 50 South, Range 41 East, Broward County.

The Permittee shall pay all recording fees. The conservation easement shall be in favor of the Department of Environmental Regulation and shall restrict any activity including dredging and filling of land, cutting, eradicating or pruning of endemic vegetation beyond the scope of the approved restoration plan indicated in Condition No. 1. A draft conservation easement and a certified survey with a legal description shall be submitted to the Bureau of Permitting in Tallahassee for review and approval before it is filed (by the Permittee) with the Clerk of the Circuit Court, Broward County.

10. Written Notice

Written notice from the Department indicating that Conditions Nos. 8 and 9 have been satisfied shall be obtained by Broward County prior to beginning any construction on the landfill site. All work in the restoration sites shall be completed within one year of commencement of construction on the landfill site.

11. Time Limitations

If the proposed work within the jurisdictional area has not been completed within 5 years of the date of certification, a permit application shall be resubmitted to the Department for evaluation and shall be accompanied by the appropriate fee.

12. Monitoring

The following surface water monitoring program shall be implemented during construction for:

Parameter: Dissolved oxygen, temperature (C^O), pH, total and fecal coliform bacteria, and benthic macroinvertebrates

Frequency: Quarterly throughout the year except that the samples shall be collected monthly for April, June, August and September. Sampling shall continue for a period of 5 years. Sampling shall begin 30 days prior to initial construction for background levels. Thereafter, sampling shall be initiated within 2 months of beginning operation of the facility. All samples, except benthic macroinvertebrates, shall be taken for a 24 hour period, at 4 hour intervals beginning one hour before sunrise. Benthic macroinvertebrates shall be taken once each sampling period.

Sampling

Location: 150 meters downgradient from the retention pond discharge point in the river at the surface, mid-depth and 1 ft. above the bottom. This location will be called sampling point D.

Parameter: Iron, lead, copper, mercury, cadmium, zinc, silver.

Frequency: Quarterly throughout the year except that the samples shall be collected monthly for April, June, August and

September. Sampling shall continue for a period of 5 years. Sampling shall begin 30 days prior to initial construction for background levels. Thereafter, sampling shall be initiated within 2 months of beginning operation of the facility. All samples shall be taken for a 24 hour period, at 4 hour intervals beginning one hour before sunrise.

Analyses

Water quality analyses should be performed at detection levels commensurate with water quality criteria for Class III waters (F.A.C. rule 17-3.121).

If a violation occurs for any sampled parameter, the permittee shall, after notifying the Department, institute corrective action to abate the violation. Corrective action may include modifications to the types of waste collected in the landfill, the methods of disposal or physical modifications to the landfill or resource recovery plant. Additionally, corrective action could also include further monitoring to determine the extent and degree of violation. Any modifications shall be coordinated with the Department's Solid Waste Section in West Palm Beach. Department approval shall be obtained prior to any action constituting a modification of this permit.

All monitoring reports shall be submitted to the Bureau of Permitting, Tallahassee, and the Southeast Florida District, West Palm Beach, under a cover letter containing the following information: (1) permit number; (2) handling, storage and analysis of the samples; (3) a map indicating the sampling locations; and (4) a statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection and accuracy of the data. Monitoring reports shall also include the following information for each sample that is taken:

- (1) time of day samples taken;
- (2) depth of water body;
- (3) depth of sample;
- (4) antecedent weather conditions;
- (5) tidal stage and direction of flow; and
- (6) wind direction and velocity.

Monitoring reports shall be submitted to the Department within 2 weeks of completion of analysis for each sampling period.

13. Protection of Vegetation

The certification-holder shall develop the site so as to retain endangered and threatened plants, or replant these plants in another suitable environment. Any endangered or threatened plants should be staked in the field or relocated, as appropriate, prior to commencement of any construction or site preparation activites.

14. Dewatering Operations

There shall be no dewatering operations during construction without approval of SFWMD. Such approval may be obtained by submitting an application to SFWMD at least 90 days prior to start of dewatering operations. Any discharge of water from dewatering operations shall not violate water quality standards.

B. 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 or harmful effects or evidence of

irreversible environmental damage are detected during construction, the permittee shall notify the DER Southest Florida District Office, Post Office Box 3858, 3301 Gun Club Road, West Palm Beach, Florida, 33402-3858, 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.

C. Reporting

- 1. Notice of commencement of construction shall be submitted to the Southeast Florida District Office of the DER within 15 days of initiation. Starting three (3) months after certification, a quarterly construction status report shall be submitted to the District Office of the DER. The report shall be a short narrative describing the progress of construction.
- 2. Upon completion of construction the DER Southeast Florida District Office will be notified in order that a pre-operational inspection can be performed.

XIV. OPERATION

A. Air

The operation of the Resource Recovery Facility shall be in accordance with all applicable provisions of Chapter 17-2, 17-5, and 17-7, Florida Administrative Code. In addition to the foregoing, the permittee shall comply with the following specific conditions of certification:

- 1. Emission Limitations upon Operation of Units 1-3
- a. Stack emissions from each unit shall not exceed the following:

- (1) Particulate matter: 0.015 grains per standard cubic foot dry gas corrected to 12% CO₂
- (2) SO₂: 0.31 lbs/MBtu 30 day rolling average, not to exceed 0.62 lbs/MBtu
- (3) Nitrogen Oxides: 0.56 lbs/MBtu
- (4) Carbon Monoxide: 0.09 lbs/MBtu
- (5) Lead: 0.0015 lbs/MBtu
- (6) Mercury: 3200 grams/day for the entire facility. Compliance shall be determined in accordance with 40 CFR 61, Method 101, Appendix B.
- (7) Odor: there shall be no objectionable odor at the site boundary.
- (8) Visible emissions: opacity shall be no greater than 15% except that visible emissions with no more than 20% opacity may be allowed for up to three consecutive minutes in any one hour except during start up or upsets when the provisions of 17-2.250, FAC, shall apply.

 Opacity compliance shall be demonstrated in accordance with Florida Administrative Code Rule 17-2.700(6)(a)9., DER Method 9.
- (9) Fluoride: 0.0022 lb/MBtu
- (10) Beryllium: 9.3xE-7 lb/MBtu
- (11) VOC: 0.013 lb/MBtu
- (12) Sulfuric Acid Mist: 0.0047 lb/MBtu
- b. The height of the boiler exhaust stack shall not be less than 195 feet above grade.
- c. The incinerator boilers shall not be loaded in excess of 115% of their rated nameplate capacity of 62,500 pounds of MSW per hour each.
- d. The incinerator boilers shall have a metal name plate affixed in a conspicuous place on the shell showing manufacturer, model number, type waste, rated capacity and certification number.

e. Compliance with the limitations for particulates, sulfur oxides, nitrogen oxides, carbon monoxide, fluoride, sulfuric acid mist, VOC and lead shall be determined in accordance with Florida Administrative Code Rule 17-2.700, DER Methods 1,2, 3, and 40 CFR 60, Appendix A, Methods 5, 7, 8, 10, 12, 13A or 13B, and 25. The stack test for each unit shall be performed at +10% of the maximum heat input rate of 970 x 106 Btu per hour, or the maximum Compliance with the beryllium emission limitation shall be harcing rate of determined in accordance with 40 CFR 61, Method 103 or 104, Maximum representative soot blowing which shall be averaged proportionally to normal daily operations. Visible emission testing shall be conducted simultaneously with soot blowing and non-soot blowing runs.

2. Emission Control Equipment

- a. The particulate emission control device shall be designed and constructed to achieve a maximum emission rate of 0.015 grains per dscf.
- b. The fluoride and acid gas controls system shall be designed to remove at least 90% of the inlet concentrations.
- c. The permittee must submit to the Department within thirty (30) days after it becomes available, copies of technical data pertaining to the selected emissions control systems. These data should include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters. The Department may, upon review of these data, disapprove the use of any such device if the Department determines the selected control device to be inadequate to meet the emission limits specified in 1.a. above. The data shall be processed and approved or denied in accordance with F.S. 120.60.

3. Air Monitoring Program

- a. The permittee shall install and operate continuously monitoring devices for stack oxygen and opacity. The monitoring devices shall meet the applicable requirements of Chapter 17-2, Section 17-2.710, FAC, and 40 CFR 60.45, and 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications. Certification shall be conducted annually from initial certification. Data on monitoring equipment specifications, manufacturer, type, calibration and maintenance needs, and location on the stack shall be provided to the department for approval prior to installation.
- b. The permittee shall provide sampling ports into the stack and shall provide access to the sampling ports in accordance with Section 17-2.700(4), FAC. Drawings of stack testing facilities as required by Section 17-2.700(4) shall be submitted to the department for approval at least 120 days prior to construction of the stack.
- c. The permittee shall have a sampling test of the stack emissions and the fluoride and acid gas control system removal efficiencies performed by a commercial testing firm within 90 days of the start of operation of the boilers and annually from the date of testing thereafter.

4. Reporting

- a. Two copies of the results of the stack tests shall be submitted within forty-five days of testing to the DER Southeast Florida District Office. An additional copy shall be submitted to the Broward County Environmental Control Board.
- b. Stack monitoring shall be reported to the DER Southeast District Office on a quarterly basis in accordance with Section 17-2.710, FAC, and 40 CFR, Part 60, Subsection 60.7.

c. Notice of anticipated and actual start-up dates of each incinerator boiler shall be submitted to the DER Southeast Florida District Office.

B. Fuel

The Resource Recovery Facility shall utilize refuse such as garbage and trash (as defined in Chapter 17-7, FAC) as its fuel. Use of alternate fuels would necessitate modification of these Conditions of Certification. Refuse as fuel shall not include "hazardous waste" as defined in Chapter 17-30, FAC.

C. Wastewater Disposal

Plans drawings and specifications for leachate collection systems, pumps, lift stations, sewage collection systems, and wastewater collection systems shall be furnished to the department for approval at least 120 days prior to start of construction. Also plans and specifications for off-site sewage and wastewater transmission systems shall be furnished to the

department and the Broward County Environmental Quality Control Board for approval 120 days prior to construction.

D. Water Discharges

1. Surface Water

a. Any discharges from the site stormwater system via the emergency overflow structure which result from an event LESS than a ten-year, 24-hour storm (as defined by the U.S. Weather Bureau Technical Paper No. 40, or the DOT drainage manual, or similar documents) shall meet State Water Quality Standards, Chapter 17-3, FAC, the standards of Chapter 17-25, FAC, and Chapter 40E.2 and 40E.4, FAC

b. Sampling of water quality in the South Fork New River Canal shall be performed monthy at stations A, D, F, and G as shown on Figure 2.3.4.1 of the application. The sampling shall commence upon the start of operation. The results of the sampling shall be reported to the department's Southeast District Office quarterly for the following parameters:

DO Copper Cadmium

BOD Nitrates Iron

TSS Nickel Lead

Oil and Grease pH COD

Zinc Mercury Temperature

Benthic Macroinvertebrates (quarterly)

Fecal coliform bacteria Total coliform bacteria

2. Groundwaters

a. All discharges to groundwaters, such as landfill leachate, shall be collected and treated as necessary, or otherwise be of high enough quality, to be able to meet the Water Quality Standards of Sections 17-3.402 and 17-3.404, FAC, at the boundary of the site.

3. Groundwater Monitoring Program

- a. Sampling of the shallow aquifer groundwater quality shall be conducted in at least six well clusters in the site vicinity. At least one of these wells shall be up hydrologic slope from the landfill area to provide current background data. Other wells shall be located down hydrologic slope from the landfill areas. Specific location of these wells and the monitoring program may be proposed by the applicant, but must be approved by the Department at least fourteen months prior to start of operation of the facility.
- b. Operational background monitoring shall commence at least one year prior to operation of the resource recovery

facility. Construction of monitoring wells and the collection of samples shall be in accordance with EPA recommended methods as contained in Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities (EPA/530/SW-611). The wells shall be deep enough to insure that groundwater samples can be obtained with the groundwater table elevation at its estimated lowest point and shall be protected from damage and destruction. Samples shall be analyzed in accordance with the methods described in Chapter 17-4, FAC. Analyses shall be performed by laboratories which are approved by the Department of Health and Rehabilitative Services to conduct analyses pursuant to Section 403.863, F.S., the State Public Water Supply Laboratory Certification Program.

c. The wells shall be monitored on a quarterly basis for the following parameters:

Conductivity	Arsenic	Selenium	Sulfate
Nitrates	Barium	Silver	Manganese
Iron	Cadmium	Chlorides	TDS
COD	Chromium	рН	Sodium
Nickel	Lead	Copper	
Aluminum	Mercury	Zinc	
Total Coliform Bacteria Any other parameters as may be			
indicated by operational circumstances			

- d. Reports shall be submitted in duplicate within 30 days of receipt of analysis results to the Department for distribution to the appropriate review personnel.
- e. The monitoring program may be reviewed annually by the Department, and a determination made as to the necessity and extent of continuation of the program. Aspects of the program relation to sampling, monitoring, reporting, and related time schedules may be modified in accordance with the provisions of condition number XII.

E. Solid/Hazardous Waste

- 1. Operation of the associated landfill shall be done in accordance with all applicable portions of Chapter 17-7, FAC, including prohibitions, procedures for closing of the landfill, and final cover requirements, or, as provided in this condition (XIV.E.) in its entirety. The plans of the final landfill design shall be provided to the department for review and approval at least 180 days prior to start of operation. The final plans for this facility shall include designs for the isolated storage of suspected hazardous toxic or pathological wastes prior to final disposition.
- 2. No hazardous, toxic, or pathological wastes shall be burned or landfilled at the site.
- 3. Rodent and insect control shall be provided as necessary to protect the health and safety of site employees and the public. Pesticides used to control rodents, flies, and other vectors shall be as specified by the Florida Department of Agriculture and Consumer Services.
- 4. A monthly report shall be prepared detailing the amount and type (putrescible, special wastes, boiler residue, etc.) of materials landfilled at the site, and the treatment provided (see condition XIV.E.2. above). These reports shall be furnished to the DER Southeast District Office quarterly, commencing 120 days after the Resource Recovery Facility becomes operational and is producing residues.
- 5. Unless approved by the Department with subsequent modification of conditions, this facility shall not accept materials currently defined as "Hazardous Wastes", i.e., pesticides, volatile or radioactive material, etc.
- 6. All cells will be constructed to promote leachate drainage to a low end of the cell; all leachate collected at the low end of active or inactive cells shall be pumped to the collection system for transmission to a permitted treatment

system. Leachate collected between the primary and secondary liners shall be monitored quarterly for conductivity, chlorides, ammonia, iron, sulfur, nitrates, and zinc. Results will be reported to the District Manager within 30 days.*

- 7. A chemical analysis of the boiler residue including EP toxicity shall be conducted within 30 days after commencement of operation, testing at the minimum levels for Arsenic, Cadmium, Chromium, dioxins, Mercury, pesticides, Zinc and Lead to determine the nature and potential toxicity or hazardousness of the materials created in the combustion process.
- 8. Results from the residue analysis shall immediately be sent to the Department and will be used to determine whether or not these materials constitute a "Hazardous Waste" as defined by Chapter 17-30, FAC; results of these analyses may also be used for correlation with groundwater monitoring information and in any subsequent modification of conditions.
- 9. If residue materials are determined to be a "Hazardous Waste", then measures shall be taken to treat or dispose of the residues pursuant to rule promulgated by Federal, State or Local authorities, as may be applicable.
- 10. If the nature of materials received at the facility becomes altered, either due to modification of conditions, i.e., the facility is allowed to incinerate already known hazardous wastes such as pesticides, or if groundwater monitoring reveals unusual groundwater conditions which may be attributable to the
- * Leachate collected above the primary liner shall be monitored monthly for conductivity, pH, lead, mercury, cadmium, chromium, copper, arsenic, zinc, <a href="oil and grease and total organic halogens. Results of such monitoring shall be reported to the operator of the receiving municipal sewage treatment plant and the District Manager.

landfilling of this residue, then a subsequent analysis may be required at that time.

- 11. There shall be no discharge to the environment of polychlorinated biphenyl compounds.
- 12. The permittee shall provide the department's District Office with a set of full-sized plans for the operational and closure phases of the project for review and approval at least 90 days prior to implementation of those phases. Within 90 days after completion of construction on the closure phase of the project, the permittee shall submit certified as-built plans signed and sealed by a Florida Registered Professional Engineer.
- 13. To insure that the liners are continuous throughout the cell, the liner will be installed either by the manufacturer or by a competent experienced lining contractor according to the manufacturer's specifications. In addition, as part of quality control measures, field seams between in-place liner and newly installed liner will be tested according to ASTM specifications to insure integrity between materials.

F. 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. The safety standards specified under Section 440.56, Florida Statutes, by the Industrial Safety Section of the Florida Department of Commerce will be complied with during operation.

G. Transmission Lines

The directly associated transmission lines from the

Resource Recovery Facility electric generators to the Florida Power and Light Company Substation shall be kept cleared without the use of herbicides.

H. Noise

Operational noises shall not exceed local noise ordinance limitations nor those noise standards imposed by zoning.

I. Water Consumption

No groundwater may be used for cooling water.

XV. WATER MANAGEMENT DISTRICT CONDITIONS - GENERAL

- A. The County/Vendor shall prosecute the work authorized under the Certification in a manner so as to minimize any adverse impact of the works on fish, wildlife, natural environmental values, and water quality. The County/Vendor shall institute necessary measures during the construction period, including full compaction of any fill material placed around newly installed structures, to reduce erosion, turbidity, nutrient loading and sedimentation in the receiving waters.
- B. Water quality data required by the DER for the surface water management system shall be submitted to the District. Parameters to be monitored include but are not limited to those listed in Chapter 17-3 and 17-4, F.A.C. If water quality data is required by the Department, the County/Vendor shall provide such data to the District on volumes of water discharged, including total volume discharged during the days of sampling and total discharges from the property or into surface waters of the state.
- C. The operational phases of the surface water management system authorized under this Certification shall not become effective until a Florida registered professional engineer certifies upon

completion of each phase that these facilities have been constructed in accordance with the design approved by the District. Within 30 days after completion of construction of each phase, the County/Vendor shall submit the engineer's certification, and notify the District that the facilities are ready for inspection and approval.

- D. All roads shall be set at or above the elevation acceptable to Broward County, per Ordinance 85-16, as may be amended.
- E. All building floors shall be set at or above elevations required by Broward County, per Ordinance 85-16, as may be amended.
- F. Off-site discharges during construction and development shall be made only through the discharge structures authorized by this Certification.
- G. No construction authorized herein shall commence until the Vendor has agreed, in writing, that it will be responsible for the construction, operation, and maintenance of the entire surface water management system during the term of its lease.
- H. No construction authorized herein shall commence until the County has agreed, in writing, by letter or resolution, that it will be responsible for the construction, operation, and perpetual mainentance of the entire surface water management system, both during operation of the facility and following the closure of the whole or any part of the facility.
- I. This Certification is based on the applicant's submitted information to the District which reasonably demonstrates that adverse off-site water resource related impacts will not be caused by the authorized activities. The plans, drawings, and design specifications submitted to the applicant shall be considered the

- minimum standards for compliance. It is also the responsibility of the County/Vendor to insure that adverse off-site water resource related impacts do not occur during construction.
- J. The County/Vendor shall secure a well construction permit prior to construction, repair, or abandonment of any wells as described in Chapter 40E-3, F.A.C.
- K. In the event of a declared water shortage, water use reductions will be ordered by the District in accordance with the Water Shortage Plan, Chapter 40E-21, F.A.C.
- L. This project must be constructed in compliance with and meet all requirements set forth in Chapter 373, Florida Statutes, and Chapters 40E-2, 40E-3, and 40E-4, F.A.C.
- M. The County/Vendor shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, operation, maintenance or use of any facility authorized by this Certification.
- N. Authorized representatives of the District shall be allowed to enter the premises to inspect and observe the operation of the surface water management system and associated landfill facilities, mitigation areas, and monitoring wells in order to determine compliance with the conditions of this Certification.

XVI. WATER MANAGEMENT DISTRICT - SITE SPECIFIC STANDARDS

A. Prior to construction of either the Solid Waste Energy Resource Recovery Facility or the ash residue/unprocessable materials landfill, a complete set of paving, grading, and drainage plans with supporting calculations must be submitted to the South Florida Water Management District, for a determination of compliance with Chapter 40E-2 and 40E-4, F.A.C. Said plans shall include the following:

- 1. Paving, grading and drainage plans with special attention to perimeter site grading; and
 - 2. Drainage calculations including:
- a. Design storms used including depth, duration and distribution;
 - b. Off-site inflows;
- c. Stage-storage computations for the project and stage-discharge computations for the outfall structure(s);
 - d. Acreages and percentage of property proposed as:
 - (1) impervious surfaces (excluding water bodies)
 - (2) pervious surfaces (green areas)
 - (3) lakes, canals, retention areas, etc.
 - (4) total acreage of the project
- e. Runoff routing calculations showing discharges, elevations, and volumes detained during applicable storm events; and
- f. Calculations required for determination of minimum building floor and road elevations.
- B. Any further modifications to the drawings and supporting calculations submitted to the South Florida Water Management District shall be pursuant to Section 403.516, F.S., and Rule 17-17.211, F.A.C., and shall be submitted to the District for a determination that the modifications are in compliance with Chapters 40E-2 and 40E-4, F.A.C.
- C. Depending on the calculations submitted, water quality assurances must be provided for stormwater runoff from all portions of the landfill(s) which do not have final cover.
- D. District permits (Water Use and Surface Water Management) may be required for off-site mitigation areas and are considered by this agency for permitting purposes as separate from this Certification.

- E. Prior to the District declaring any easements as surplus, the following must have been met:
- 1. The District has reviewed and is satisfied with the detailed mitigation plans for the lands within the South New River Canal right of way; and
- 2. Broward County must enter into a Memorandum of Understanding with the District regarding future maintenance of the canal in the event that flow restrictions result from the facility.
- F. In the event the District does not declare as surplus all of its properties which the applicant proposes to use, connect to, or cross over, such use, connection, or crossing must meet the District's criteria for the issuance of a right-of-way permit, found in Chapter 40E-6, F.A.C.
- G. There shall be no on-site withdrawal of groundwater or dewatering, unless the following conditions are met:
- 1. Withdrawal rates, well construction details, well locations, and the data from the long term groundwater monitoring network are provided to the District;
- 2. The impacts of the proposed withdrawals are assessed and provided to the District;
- 3. No dewatering discharge shall be allowed to drain to tidal waters; and
- 4. The District concurs that there will be no adverse impacts as a result of the proposed withdrawals.

- H. Final water use rates for process and irrigation shall be submitted to the District when a vendor and final plant design are determined.
- I. Pursuant to Chapter 17-7, F.A.C., a closure plan shall be submitted to the District. In addition, the plan shall contain information on irrigation demands and sources for the grassed/vegetation areas.
- J. If not provided pursuant to Site Specific Standard No. 2, retention/detention requirements contained in the Basis of Review for Surface Water Management Systems (40E.4035(1)(a)) for water quality enhancement must be provided to the District prior to the construction of Phase II.
- K. Additional filtration for enhancement of stormwater should be provided by discharging through spreader mechanisms into the on-site wetland mitigation areas.
- L. Discharge structures shall include a baffle, skimmer, or other mechanism suitable for preventing oil, grease, or other floatable materials from discharging to and/or from retention/detention areas.
- M. The vendor shall install screw gates on water control structures capable of restricting discharge of poor quality surface water and, prior to construction, shall submit the location of these screw gates to the District.
- N. The applicant shall stabilize critical areas, including the conveyance and perimeter swales, and areas adjacent to the let down pipes to prevent erosion.
- O. Energy dissipators shall be used whenever let down pipes discharge into perimeter swales, or the let down pipes meet the terraces.

P. Water quality samples shall be taken at the discharge location of the water management system during periods of discharge according to the schedule below. Flow shall be measured at the time of sample collection and the surface elevation of the water shall be provided. A laboratory certified by the State of Florida shall be responsible to all water quality sampliling and analyses. Reports shall be submitted to this District on a semi-annual basis. Monitoring requirements will be evaluated by this District following two years of data collection.

Monitoring Type
Schedule

Parameters

A. General (Quarterly)

Total Organic Carbon, Dissolved Oxygen, pH, Turbidity, Specific Conductance, Chemical Oxygen Demand, Alkalinity, Total Suspended Solids

B. Organics
 (Semi-annual)

Trichloroethylene, Tetrachloroethylene, Carbon Tetrachloride, Vinyl Chloride, 1,1,1-Trichloroethane, 1,2-Dichloroethane, Benzene, Ethylene, Dibromide

C. Metals
 (Semi-annual)

Aluminum, Antimony, Beryllium, Cadmium, Copper, Cyanide, Iron, Lead, Mercury, Nickel, Selenium, Silver, and Zinc

Q. The District also recommends two additional shallow groundwater monitoring well clusters be added to complete the groundwater monitoring network. The two well clusters shall include an upgradient well cluster, west of the resource recovery facility, and a down gradient well cluster, between the resource recovery facility and the South New River. The wells shall be monitored according to the provisions of Condition XIV.D.3.

R. Prior to the commencement of construction, the District staff must have received and reviewed any pertinent additional information required to be submitted under the District's site specific standards and the conditions of certification, and must issue a written approval for the desired construction.

XVII. OPERATIONAL CONTINGENCY PLANS

A. Operating Procedures

The permittee shall develop and furnish the Southeast Florida District Manager a copy of written operating instructions for all aspects of the operation which are critical to keeping the facility working properly. These instructions shall also include the handling of suspected hazardous, toxic, or pathological wastes.

B. Contingency Plans

The permittee shall develop and furnish the Southeast Florida District Manager written contingency plans for the continued operation of the system in event of breakdown. Stoppages which compromise the integrity of the operations must have appropriate contingency plans. Such contingency plans should identify critical spare parts to be maintained on site.

C. Current Engineering Plan

The permittee shall maintain a complete, current set of "as-built" and modified engineering plans and documents in order to facilitate the smooth acquisition or fabrication of spare parts or mechanical modifications.

D. Application Modifications

The permittee shall furnish appropriate modifications to drawings and plot plans as part of the application including design plans for isolation and containment of hazardous wastes.

E. Operating Budget

The permittee and Broward County should develop a capital and operational budget that provides sufficient income from reasonable tipping fees, electric power sales, sales of recovered materials or other income producing items to operate the facility in an environmentally safe manner and to provide funds for any improvements or expansions required in the future. If the permittee and the county cannot agree on an adequate financial plan, either party may petition the Siting Board for a hearing on this plan. The Siting Board may delegate the matter to the Division of Administrative Hearings for hearing purposes. The operating budget plan shall be updated periodically as economic conditions may warrant.

F. Transfer of Rights

If certain contractual rights are transferable, the applicant shall notify the Department who will be responsible for compliance with the certification and who will be fully subject to the limitations and conditions of this certification. The Office of General Counsel of DER shall retain the right to review and approve all major contracts between the South Broward County Resource Recovery Project, Inc., and its contractors and vendors.