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State of Florida Department of Environmental Protection  
Pinellas County  
Resource Recovery Facility  
PA 78-11  
CONDITIONS OF CERTIFICATION

**RECEIVED**

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BUREAU OF  
AIR REGULATION

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CONDITIONS OF CERTIFICATION FOR THE  
PINELLAS COUNTY RESOURCE RECOVERY FACILITY

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 Southwest Florida District Office 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.

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 Protection 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.

These conditions of certification apply to any activities conducted on the 20 acre certified site, as depicted in the permittee's 1995 application for modifications.

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

A. 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.

B. This certification shall be automatically modified by DEP to conform to any subsequent amendments, modifications, or renewals made by DEP under a federally delegated or approved program to any separately issued Prevention of Significant Deterioration (PSD) permit, Title V Air Permit, or National Pollutant Discharge Elimination System (NPDES) permit for the certified Facility. Pinellas County shall send each party to the original certification proceedings (at the party's last known address as shown in the record of such proceeding) notice of requests for modifications or renewals of the above listed permits if the request involves a relief

mechanism (e.g., mixing zone, variance, etc.) from standards, a relaxation of conditions included in the permit due to state permitting requirements, or the inclusion of less restrictive air emission limitations in the air permits. DEP shall notify all parties to the certification proceeding of any intent to modify conditions under this section prior to taking final agency action.

C. 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.

#### 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 50 Jackson 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.

##### 2. Burning

Open burning in connection with land clearing shall be in accordance with Chapter 62-256, FAC, and County Ordinance 76-18. 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 Waste

Solid wastes resulting from construction shall be disposed of in accordance with the applicable regulations of Chapter 62-701, 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 Corporation Gandy substation shall be cleared, maintained and prepared without the use of herbicides.

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 DEP Southwest Florida District Office, 3804 Coconut Palm Drive, Tampa, Florida 33618-8318, 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 of damage.

C. Reporting

1. Starting three (3) months after certification or approval of a major modification involving new construction on the certified site, a quarterly construction status report shall be submitted to the Southwest Florida District Office of the Department of Environmental Protection. The report shall be a short narrative describing the progress of construction.

2. Upon completion of construction of a new or modified unit, the DEP Southwest 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 Chapters 62-210, 62-296, and 62-297, Florida Administrative Code. The operation of and emissions from the hydrated lime silo in the water softening system shall be restricted in accordance with the Department's operating permit (AO52-268853) and applicable regulations. The operation of and emissions from the auxiliary fossil-fuel fired boiler and associated fuel oil storage tank shall be restricted in accordance with condition XV.A below. In addition to the foregoing, the permittee shall comply with the following specific conditions of certification:

1. The emissions limitations and other requirements contained in this subsection shall apply until the electrostatic precipitators in the Resource Recovery Facility are replaced with new air pollution control (APC) systems and compliance testing is completed. Thereafter, the emissions limitations and other requirements contained in subsection 2., below, shall apply.

- a. Stack emissions from Units 1 or 2 shall not exceed the following:
  - (1) Particulate matter: in grains per dry standard cubic foot corrected to 12% CO<sub>2</sub> - 0.08.
  - (2) SO<sub>2</sub> - 170 lbs/hr each unit
  - (3) Odor: there shall be no objectionable odor.
  - (4) Visible emissions: stack opacity shall be no greater than 20% except as provided for during start-up, shutdown, or malfunctions when the provisions of Section 62-210.700, FAC, shall apply.
- b. Emissions from Unit 3 shall not exceed the following:
  - (1) Particulate matter: in grains per dry standard cubic foot corrected to 12% CO<sub>2</sub> - 0.03.

- (2) SO<sub>2</sub> - 170 lbs/hr
- (3) Nitrogen oxides - 254 lbs/hr.
- (4) Carbon monoxide - 66 lbs/hr.
- (5) Lead - 4.4 lbs/hr.
- (6) Mercury - 3200 grams/day when more than 2205 lbs/day of municipal sludge is fired. Compliance shall be determined in accordance with 40 CFR 61 Method 101, Appendix B.
- (7) Odor - there shall be no objectionable odor.
- (8) Visible emissions - stack opacity shall be no greater than 20% except as provided for during start-up, shutdown or malfunctions when the provisions of Section 62-210.700, FAC, shall apply.

c. The height of the boiler exhaust stacks shall not be less than 161 feet above grade.

d. The incinerator boilers shall not be loaded in excess of their rated capacity of 87,500 pounds of municipal solid waste per hour each.

e. 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.

f. Compliance with the limitations for particulates, opacity, sulfur oxides, nitrogen oxides, carbon monoxide, and lead shall be determined in accordance with Florida Administrative Code Rule 62-297, DEP Methods 1, 2, 3, 5, 6, 9, or 40 CFR Part 60, Appendix A, Methods 1-7, 9, 10, and 12. The stack test shall be performed at  $\pm 10\%$  of the maximum steam rate of 250,000 pounds per hour.

g. Electrostatic Precipitator

- (1) For Unit 3 the three-field electrostatic precipitator shall be designed and constructed to achieve a maximum emission rate of 0.03 grains per dscf or allow the installation of a fourth field in the event that the three-field ESP fails to perform as specified, or if other parameters of the Facility's operation are



subsequently modified, necessitating additional control.

- (2) For Units 1 and 2 the three-field electrostatic precipitators shall be designed and constructed to allow the installation of a fourth field in the event that the three-field ESPs fail to perform as specified, or if other parameters of the Facility's operation are subsequently modified, necessitating additional control.

h. Air Monitoring Program

- (1) The permittee shall install and operate continuously stack monitoring devices for oxygen and stack opacity. The monitoring devices shall meet the applicable requirements of Chapter 62-297, F.A.C., and 40 CFR 60.45, and 40 CFR 60.13, including certification of each device.
  - (2) The permittee shall provide sampling ports into the stack and shall provide access to the sampling ports in accordance with Chapter 62-297, FAC.
  - (3) The permittee shall have a sampling test of the stack emissions performed by a commercial testing firm within 90 days of the start of operation of the new boilers and annually from the date of testing thereafter.
  - (4) The permittee shall operate two continuous SO<sub>2</sub> monitors and one continuous wind direction and velocity monitor in the immediate vicinity of the site. The monitors shall be specifically located as designated by the DEP and shall conform to 40 CFR 53. Monitoring shall begin upon commencement of operation.
2. The emissions limitations and other requirements contained in this subsection shall apply after the electrostatic precipitators in the Resource Recovery Facility are replaced with new air pollution control (APC) systems and compliance testing is completed.

- a. Emission limits for each boiler are as follows:
- (1) Particulate matter (PM) emissions shall not exceed 0.012 grains/dry standard cubic feet (gr/dscf) corrected to 7% O<sub>2</sub>, 14.4 lbs/hr/unit, and 63.1 tons/yr/unit.
  - (2) PM emissions less than 10 microns in diameter (PM10) shall not exceed 0.012 gr/dscf corrected to 7% O<sub>2</sub>, 14.4 lbs/hr/unit, and 63.1 tons/yr/unit.
  - (3) MWC Acid Gases
    - (a) Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 31 parts per million by dry volume (ppmdv) corrected to 7% O<sub>2</sub> (24-hour daily geometric mean) or achieve 75% removal efficiency as a geometric mean value, whichever is less restrictive, with a not-to-exceed cap of 122 ppmdv corrected to 7% O<sub>2</sub>; 0.372 lbs/MMBTU, 170.0 lbs/hr/unit, and 744.6 tons/yr/unit.
    - (b) Hydrogen chloride (HCl) emissions shall not exceed 31 ppmdv corrected to 7% O<sub>2</sub>, or achieve 95% removal efficiency, whichever is less restrictive, with a not-to-exceed cap of 100 ppmdv corrected to 7% O<sub>2</sub>; 0.174 lbs/MMBTU, 79.8 lbs/hr/unit, and 349.5 tons/yr/unit.
  - (4) Carbon monoxide (CO) emissions shall not exceed 100 ppmdv corrected to 7% O<sub>2</sub> (4-hour arithmetic block average); 0.133 lbs/MMBTU, 61.0 lbs/hr/unit, and 267.2 tons/yr/unit.
  - (5) MWC Metals
    - (a) Mercury (Hg) emissions shall not exceed 70 micrograms/dry standard cubic meter (μg/dscm) corrected to 7% O<sub>2</sub> or achieve 85% control, whichever is less restrictive, with a not-to-exceed cap of 100 μg/dscm corrected to 7% O<sub>2</sub>, 1.2 x 10<sup>-4</sup> lb/MMBTU, 5.24 x 10<sup>-2</sup> lbs/hr/unit, and 0.23 tons/yr/unit.

- (b) Lead (Pb) emissions shall not exceed 490  $\mu\text{g}/\text{dscm}$  corrected to 7%  $\text{O}_2$ ;  $5.6 \times 10^{-4}$  lbs/MMBTU, 0.257 lbs/hr/unit, and 1.13 tons/yr/unit.
- (c) Cadmium (Cd) emissions shall not exceed 40  $\mu\text{g}/\text{dscm}$  corrected to 7%  $\text{O}_2$ ;  $4.6 \times 10^{-5}$  lbs/MMBTU, 0.021 lbs/hr/unit, and 0.092 tons/yr/unit.

(6) MWC Organics

The polychlorinated dibenzo-p-dioxin (PCDD) and polychlorinated dibenzo-furans (PCDF) emissions shall not exceed 30 nanograms per dry standard cubic meter (ng/dscm) total mass corrected to 7%  $\text{O}_2$ ;  $3.44 \times 10^{-8}$  lbs total mass/MMBTU,  $1.6 \times 10^{-5}$  lbs/hr/unit and  $6.9 \times 10^{-5}$  tons/yr/unit.

- (7) Nitrogen oxides emissions (measured as  $\text{NO}_2$ ) shall not exceed 200 ppmv corrected to 7%  $\text{O}_2$ ; or 0.439 lb/MMBTU, 200.3 lb/hr/unit, and 877.3 tons/yr/unit. The permittee may request authorization from the Department to conduct nitrogen oxides emissions averaging pursuant to 40 CFR 60.33b.

- (8) The opacity level in the stack shall not exceed 10% (six minute block average).

- (9) The emission limitations for the modified Facility are based on the compliance methods specified for each pollutant. Any change in the specified compliance method for any pollutant may result in appropriate changes to the emission limitation for the pollutant.

b. Emissions Limitations for Minor Sources, after the retrofit is complete, are as follows:

- (1) Visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) shall not occur in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour period). This visible emissions limitation shall not apply during maintenance and repair of the ash conveying system.

- (2) The particulate matter emissions shall not exceed 0.005 gr/dscf from the outlets of the baghouses at the lime storage silo, two activated carbon storage silos and the fly ash storage silo. Pursuant to Section 62-297.620(4), FAC, the particulate matter compliance test requirements are waived for these minor sources and an alternate standard of 5% opacity shall apply. A visible emission reading greater than 5% opacity does not create a presumption that the emission limit (i.e., in gr/dscf) is being violated, but would require the permittee to perform a particulate stack test in accordance with EPA Methods contained in 40 CFR 60, Appendix A.
- (3) The particulate matter emissions shall not exceed 0.0102 gr/dscf from the outlet of the cyclone/wet scrubber system at the metals recovery system. Pursuant to Section 62-297.620(4), FAC, the particulate matter compliance test requirements are waived for this minor source and an alternate standard of 5% opacity shall apply. A visible emission reading greater than 5% opacity does not create a presumption that the emission limit (i.e., in gr/dscf) is being violated, but would require the permittee to perform a particulate stack test in accordance with EPA Methods contained in 40 CFR 60, Appendix A.

c. Operating Standards

- (1) After the modifications to the Resource Recovery Facility are complete, the height of the boiler stack shall not be less than 165 feet above the ground level at the base of the stack.
- (2) Each MWC unit shall be allowed to operate up to 110% of the unit's maximum demonstrated load capacity, as achieved during the most recent dioxin/furan compliance test. Maximum capacity shall be based on the steam (or feedwater) flow rate, which shall be continuously monitored according to the

American Society of Mechanical Engineers (ASME) Power Test Code (PTC) for Steam Generating Units (PTC 4.1 and PTC 19.5) or as required by USEPA and/or FDEP regulations.

- (3) 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.
- (4) A Facility-specific maximum flue gas temperature at the final PM control device inlet shall be established as demonstrated during the most recent dioxin/furan compliance test. The maximum demonstrated PM control device inlet temperature shall be established as the maximum 4-hr block average temperature measured during the most recent dioxin/furan compliance test. The MWC must then be operated such that the temperature of the final PM control device inlet does not exceed this level by more than 17°C (4-hour block basis).
- (5) The carbon injection rate must be calculated and maintained in compliance with the requirements set forth in 40 CFR 60.58b(m).
- (6) The chief Facility operator, shift supervisors, and control room operators shall complete USEPA or State MWC operator training courses in compliance with 40 CFR 60.54b.
- (7) The Facility operator shall develop a site-specific training manual and shall establish a training program to review the operating manual with each person who has responsibilities affecting the operation of the Facility. The manual and training shall be updated annually.

d. Compliance Requirements

The following compliance requirements shall apply after the Facility's new air pollution control systems are operational.

- (1) A Continuous Emissions Monitor (CEM) shall be used for the measurement of oxygen at each location where carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), or nitrogen oxide (NO<sub>x</sub>) emissions are monitored. The monitor shall be installed, evaluated, and operated as required by 40 CFR 60.13. The monitor shall conform to Performance Specification 3 in 40 CFR 60, Appendix B. Quality assurance procedures shall conform to 40 CFR 60, Appendix F. The initial performance evaluation will be completed within 180 days after start-up of the modified Facility.
- (2) Compliance with PM emission limits shall be determined by USEPA Method 5. USEPA Method 1 shall be used to select sampling sites and number of traverse points. USEPA Method 3 shall be used for gas analysis. Compliance with the opacity limit shall be determined by USEPA Method 9. A minimum of three test runs shall be conducted under representative full load operating conditions. The average of these test runs shall be used to determine compliance. Compliance with PM<sub>10</sub> emission limits shall be determined by using front half filterable PM<sub>10</sub> particulate matter only. The initial compliance for PM emissions and opacity shall be conducted within 60 days after achieving maximum operating capacity, but no later than 180 days after start-up. Following the initial compliance test, performance tests for particulate and opacity shall be conducted on an annual basis (no more than 12 calendar months following the previous performance test).
- (3) A Continuous Opacity Monitor System (COMS) for measuring opacity shall be installed. Compliance shall be determined by USEPA Method 9. The output of the COMS shall be recorded on a six-minute block average basis. The COMS shall be installed, evaluated, and operated in accordance with 40 CFR 60.13, and will conform to Performance Specification 1 in 40 CFR 60, Appendix B. The initial performance evaluation shall be completed within 180 days after start-up.

(4) Compliance with emission limits for cadmium (Cd), lead (Pb), and mercury (Hg) shall be determined by USEPA Method 29. A minimum sample volume of 1.7 cubic meters shall be obtained for the mercury test. Oxygen measurement shall be obtained simultaneously with each test run. The location and number of sampling points shall be determined by USEPA Method 1. USEPA Method 3 shall be used for the flue gas analysis. A minimum of three test runs shall be conducted under representative full load operating conditions. The average of these test runs shall be used to determine compliance. Initial compliance tests shall be conducted within 60 days after achieving maximum operating capacity, but no later than 180 days after start-up. Following the completion of initial compliance testing, a performance test shall be conducted on an annual basis (no more than 12 calendar months following the previous performance test).

(5) Sulfur Dioxide

Compliance with sulfur dioxide (SO<sub>2</sub>) emission limits shall be determined by using Continuous Emissions Monitor (CEM) systems to measure SO<sub>2</sub> emissions and to calculate a 24-hour daily geometric mean emission concentration. CEM systems shall be used to measure inlet and outlet concentrations of SO<sub>2</sub>. An oxygen measurement shall be obtained simultaneously with the SO<sub>2</sub> measurements. Compliance shall be determined based on the geometric mean of the hourly arithmetic average emission concentration during each daily 24-hour period measured between 12:00 midnight and the following midnight. The one-hour arithmetic averages shall be expressed as ppm<sub>dv</sub> at 7% O<sub>2</sub>, and shall be calculated using at least two data points. The CEM system shall be installed, evaluated, and operated in compliance with 40 CFR 60.13. The initial performance test shall be completed within 180 days after start-up. The CEM shall be operated in accordance with Performance Specification 2 in 40

CFR 60, Appendix B, and quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 in 40 CFR 60, Appendix F.

(6) Nitrogen Oxides

Compliance with nitrogen oxides (NO<sub>x</sub>) emissions limits shall be determined by use of a CEM system to measure NO<sub>x</sub> and calculating a 24-hour daily arithmetic average. An oxygen measurement shall be obtained simultaneously with each measurement. Compliance with the NO<sub>x</sub> emission limit shall be based on the arithmetic average of the hourly emission concentration with the CEM system during each 24-hour daily period corrected to 7% O<sub>2</sub>, measured between 12:00 midnight and the following midnight. At least two data points shall be used to calculate the one-hour arithmetic average. The CEM installation, evaluation, and operation shall follow the procedures set forth in 40 CFR 60.13. The CEM shall be operated according to Performance Specification 2 in 40 CFR 60, Appendix B. Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 in 40 CFR 60, Appendix F. The initial evaluation shall be completed within 180 days of the initial start-up

(7) Hydrogen Chloride

Compliance with hydrogen chloride (HCl) emission limits shall be determined by USEPA Method 26. The minimum sampling time shall be one hour. A minimum of three test runs shall be conducted under representative full load operating conditions. The average of these test runs shall be used to determine compliance. Oxygen measurement shall be obtained simultaneously with each test run. Initial compliance tests shall be conducted within 60 days after achieving maximum operating capacity, but no later than 180 days after start-up. Thereafter, annual performance tests shall be conducted to verify compliance.



(8) Dioxins/Furans

Compliance with emission limits for dioxin/furan shall be determined by USEPA Method 23. The minimum sample time for each test run shall be four hours. Oxygen measurement shall be obtained simultaneously with each test run. A minimum of three test runs shall be conducted under representative full load operating conditions. The average of these test runs shall be used to determine compliance. The initial compliance test shall be conducted within 60 days after achieving maximum operating capacity, but no later than 180 days after start-up. Thereafter, compliance shall be demonstrated by annual stack tests. If all three units achieve an emissions level of 15 ng/dscm corrected to 7% O<sub>2</sub> for two consecutive years, the permittee may request authorization from the Department to perform subsequent annual stack tests on only one unit per year.

(9) Carbon Monoxide

Compliance with carbon monoxide (CO) emission limits shall be determined by a CEM system for measuring CO at the combustor outlet using a four-hour block arithmetic average. The CEM system shall be operated according to Performance Specification 4A in 40 CFR 60, Appendix B. The four-hour arithmetic average (expressed as ppm<sub>dv</sub> at 7% O<sub>2</sub>) shall be calculated from one-hour arithmetic averages with the use of at least two data points. Required data shall consist of valid paired hourly averages (i.e., CO and O<sub>2</sub>). Quarterly accuracy determinations and daily calibration drift tests for CEM shall be performed in accordance with Procedure 1 in 40 CFR 60, Appendix F.

e. Operating Requirements for the Modified Facility

After the new APC systems are operational and the other modifications to the Resource Recovery Facility are complete, the Facility shall comply with the following operating requirements:

(1) MWC Load Level

Compliance with MWC load level requirements shall be determined by a steam flow meter using the American Society of Mechanical Engineers (ASME) Power Test Code Method 4.1. Steam flow shall be calculated in four-hour block arithmetic averages. The design, construction, installation, and calibration of the steam flow meter shall be based on ASME Test Code 19.5. The maximum demonstrated MWC unit load shall be determined during the initial compliance test for dioxins/furans and each subsequent compliance test, during which compliance with dioxin/furan limits are achieved. The maximum demonstrated MWC unit load shall be the maximum four-hour arithmetic average load achieved during the most recent test during which compliance with the dioxin/furan emission limit was achieved.

(2) Particulate Matter Control Device Temperature

Compliance with maximum particulate matter (PM) control device temperature requirements shall be determined by a device to measure temperature on a continuous basis at the inlet to the final PM control device. Temperature shall be calculated in four-hour block arithmetic averages. The maximum demonstrated PM control device temperature shall be determined during the initial compliance test for dioxins/furans and each subsequent test during which compliance with the dioxins/furan emission limit is achieved. The maximum PM control device temperature shall be the maximum four-hour arithmetic average temperature achieved at the final PM control device inlet during the most recent test

which compliance with the dioxin/furan limit was achieved.

(3) MWC Unit Capacity

The MWC unit capacity shall be calculated based on 24 hours of operation at the maximum design charging rate.

(4) Fly Ash/Bottom Ash Fugitive Emissions

Compliance with the fly ash/bottom ash fugitive emission standards shall be determined by USEPA Method 22. The minimum observation time shall be three hours. The observation period shall include times when the Facility will transfer ash from the MWC unit to the ash storage area and times when the ash will be loaded for disposal. However, the fugitive emission standard does not apply during maintenance and repair of the ash conveying systems. Initial compliance tests shall be conducted within 60 days after achieving maximum operating capacity, but no later than 180 days after start-up.

3. Reporting Requirements

a. Two copies of the results of the stack tests shall be submitted within sixty days of testing to the Florida DEP Southwest Florida District Office.

b. Stack monitoring shall be reported to the DEP Southwest District Office on a quarterly basis in accordance with Section 62-297, FAC, and 40 CFR, Part 60, Subsection 60.7.

B. Fuel

The fuel used in the Resource Recovery Facility shall consist of municipal solid waste, as defined in 40 CFR 60.51a, and the other non-hazardous solid wastes described in the permittee's 1995 application for a modification. Natural gas may be used as a supplemental fuel during startups, shutdowns, and at other times when necessary and consistent with good combustion practices. Use of alternate fuels would necessitate an amendment of the County's application or a modification of these Conditions of Certification, as determined by the Department.

C. Cooling Tower

1. Makeup Water Constituency

The Resource Recovery Facility shall utilize only treated sewage effluent, or stormwater runoff from the stormwater holding pond, as cooling tower makeup water. The effluent shall have received prior to use in the tower, as a minimum, secondary treatment, as well as treatment described in Condition XIV.C.2.

below. Use of waters other than treated sewage effluent or site stormwater, i.e., higher quality potable waters or lower quality less-than-secondarily treated sewage effluent, will require a modification of conditions agreed to by the Southwest Florida Water Management District and the Department and must be approved by the Governor and Cabinet.

2. Chlorination

Chlorine levels in the cooling tower makeup water shall continuously be monitored, prior to insertion in the cooling towers. Sewage effluent used as makeup shall be treated as necessary to maintain a 1.0 mg/liter total chlorine residual after fifteen minutes contact time. Chlorination should occur at an effluent turbidity of 5 Nephelometric Turbidity Units or less.

3. Special Studies

Upon satisfactory demonstration to the Department that the number of viruses entering the towers in the effluent makeup from the upgraded Largo Plant can be reduced to an undetectable level with the use of a lesser amount of chlorination, the above requirement may be altered to 1.0 mg/liter total chlorine residual after a 15 minute contact time or alternate levels as approved by the Department. This demonstration may occur through performance of special studies approved by the Department. Alteration of the chlorination requirements must still insure adequate treatment for the control of bacterial growth in the cooling towers.

D. Water Discharges

1. Surface Water

a. Any discharges from the site stormwater/leachate treatment 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, as contained in Chapter 62-302, F.A.C.

b. Leachate, stormwater, or other site wastewaters which are to be spray irrigated shall be treated to conform to any rules promulgated by the State for the land application of wastewaters in areas not commonly accessible to the public.

c. Cooling tower blowdown shall not be discharged to surface water.

d. Upon satisfactory demonstration to the Department that surface water quality will not be deteriorated, a special pilot operation, in the field, to determine the environmental effect of land application of process blowdown water from the Resource Recovery Facility may be allowed. This demonstration will require submittal of background and system design data, and provisions for monitoring as approved by the Department.

2. Groundwaters

The 20 acre certified site and an adjacent landfill are located inside a slurry wall, which separates the ground and surface waters on the site from off-site areas. The permittee's discharges to groundwater on the certified site shall be restricted by the applicable conditions of the permits and regulations that govern the permittee's activities inside the slurry wall and shall be monitored in accordance with the groundwater monitoring plan for the landfill adjacent to the certified site.

3. Groundwater Monitoring Program

Groundwater monitoring for the certified site shall be performed in the manner prescribed in the FDEP approved groundwater monitoring plan for the landfill that is located within the permittee's slurry wall and adjacent to the certified site.

E. Solid/Hazardous Waste

1. Operation of the associated landfill shall be done in accordance with the landfill's current solid waste operation permit and all applicable portions of Chapters 62-701 and 62-702, FAC, including prohibitions, procedures for closing of the landfill, and final cover requirements, or as provided in this condition (XIV.E.) in its entirety.

2. Putrescible wastes received at the landfill shall receive daily cover. No cover shall be required for the landfilling of only ash or construction/demolition debris. Daily cover shall consist of a six inch layer of compacted earth or other material approved by the DEP placed at the end of each working day.

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 DEP Southwest 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, the Resource Recovery Facility shall not accept materials currently defined as "Hazardous Wastes" in Chapter 62-730, F.A.C.

6. If residue material are determined to be a "Hazardous Waste", then measures shall be taken to treat or dispose of the residues pursuant to rules promulgated by either Federal or State authorities.

7. 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 conditions which may be attributable to the landfilling of this residue, then a subsequent analysis may be required at that time.

8. There shall be no discharge to the environment of polychlorinated biphenyl compounds.

#### 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 Corporation Gandy 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.

XV. CONDITIONS FOR ADDITIONAL AIR EMISSION SOURCES

A. AUXILIARY FOSSIL FUEL BOILER

1. The auxiliary fossil fuel boiler is subject to and must meet the applicable requirements of the federal New Source Performance Standards (NSPS), 40 CFR 60, Subpart Dc: Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60.40c through 60.48c. The fuel oil storage tank is subject to the recordkeeping provisions of 40 CFR 60.116b (a) and (b) in NSPS Subpart Kb: Volatile Organic Liquid Storage Vessels.

[Rule 62-204.800(7)(b), F.A.C. and 40 CFR 60, Subparts Dc and Kb].

2. The maximum permitted hours of operation for the auxiliary boiler are not limited (i.e., up to 8760 hours per year allowed).

3. The auxiliary boiler is permitted to fire only the following fuels and at the maximum rates shown:

Fuel	Max. % Sulfur	Max. mmBtu/hr	Max. Fuel Usage
Natural Gas	--	99.44	94.7 Mcf/hour
#2 Fuel Oil *	0.05% by wt	96.16	702 gal/hour

\* New No. 2 Fuel oil only (waste or recycled oil is not allowed)

[PPSA permit application dated 4/96, and BACT Determination made in accordance with Rule 62-296.406(2) and (3), F.A.C.]

*(NSPS Note: The sulfur content limitation of this BACT Determination is more stringent than and therefore meets the requirements of the 40 CFR 60 Subpart Dc standard for sulfur dioxide contained in 40 CFR 60.42c(d).)*

4. Visible emissions shall not exceed 20% opacity, except for one six-minute period per hour during which opacity shall not exceed 27%.

[Rule 62-296.406(1), F.A.C.]

5. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C. and Pinellas County Ordinance No. 89-70, Subpart 6.620, as amended]

6. The auxiliary boiler stack shall be tested for NO<sub>x</sub> during the initial performance tests and thereafter at permit renewal time. The NO<sub>x</sub> emissions shall not exceed 8.95 lbs/hr and 39.20 tons/yr. compliance with NO<sub>x</sub> emissions limits shall be determined by USEPA Method 7, 7E, or equivalent. Test reports shall be submitted to the Air Programs of the Southwest District Office of the Department and the Pinellas County Department of Environmental Management within 45 days of the testing. [ Rules 62-297.310(7)(a)1, and 62-297.310(8), F.A.C.]

7. The auxiliary boiler stack shall be tested for visible emissions (VE) within 30 days after first being placed in operation and annually thereafter. Initial VE testing shall be performed while firing No. 2 fuel oil if No. 2 fuel oil is to be utilized in the auxiliary boiler; otherwise initial VE testing shall be performed while firing natural gas. If initial VE testing is performed with natural gas, then VE testing with No. 2 fuel oil is required in accordance with the provisions of this permit and applicable regulations within 30 days after No. 2 fuel oil is first fired in the boiler. Test reports shall be submitted to the Air Programs of the Southwest District Office of the Department and the Pinellas County Department of Environmental Management within 45 days of the testing. [Rules 62-297.310(7)(a)1, and 62-297.310(8), F.A.C.]

8. Compliance with the visible emission limitation in Condition XV.A.4, above, shall be determined using DEP Method 9 contained in Rule 62-297.401, F.A.C. The visible emissions test shall be conducted by a certified observer and be a minimum of sixty (60) minutes in duration. The visible emissions test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. The minimum requirements for stationary point source emission test procedures and reporting shall be in accordance with Rule 62-297, F.A.C. and 40 CFR 60 Appendix A. [Rule 62-297, F.A.C.]

9. Testing of emissions shall be conducted during operation of the auxiliary boiler within 90-100% of the maximum permitted fuel heat input rate of 96.16 mmBtu/hour (702 gallons/hour) for fuel oil or 99.44 mmBtu/hour (94.7 Mcf/hour) for natural gas, when feasible. A compliance test submitted at a rate less than 90% of the maximum permitted rate will automatically constitute an amended permitted heat input rate at that lesser rate plus 10%. Within 30 days of that lower amended permitted rate being exceeded, a new compliance test shall be conducted at the higher rate. The test results shall be submitted to the Department and the Air Program of the Pinellas County Department of Environmental Management within 45 days of testing. Acceptance of the test by the Department will automatically constitute an amended permit at the higher tested heat input rate plus 10%, but in no case shall the maximum permitted heat input rate of 96.16 mmBtu/hour for No. 2 fuel oil or 99.44 mmBtu/hour for natural gas be exceeded. The fuel type and heat input rate during the test shall be included with each test report. Failure to submit the required fuel information or



operating under conditions that are not representative of normal operating conditions may invalidate the test and fail to provide reasonable assurance of compliance. [Rule 62-4.070(3), F.A.C.]

10. The permittee shall notify the Air Program of the Pinellas County Department of Environmental Management at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted. [Rule 62-297.310(7)(a)9, F.A.C.]

11. Subsequent to conducting the initial compliance test the permittee will be required to conduct an annual visible emissions compliance test (however, see Condition XV.A.11., below). If fuel oil has been used in this boiler for more than 400 hours during the 12 month period prior to the required annual compliance test, or if it is expected to be used in this boiler for more than 400 hours during the next 12 month period, then the annual VE test shall be conducted while firing No. 2 fuel oil. The permittee shall submit a statement of the fuel heat input rate and a description of the fuel in use as a part of any compliance test report. Failure to submit the heat input rate or fuel oil sulfur content may invalidate the test and fail to provide reasonable assurance of compliance. [Rule 62-4.070(3), F.A.C.]

12. Annual visible emissions compliance tests can be waived, on a year by year basis, if fuel oil has not been used in this boiler for more than 400 hours for the previous 12 months and if it is not expected to be used in this boiler for more than 400 hours during the next 12 months, except that, regardless of fuel used, a VE test shall be conducted during the 6 months period prior to applying for renewal of the operation permit. Each year when the VE test is due, if this test waiver provision is invoked, a letter must be sent to the Air Compliance Sections of the Southwest District Office of the Department and the Pinellas County Department of Environmental Management stating that the above requirements for the waiver have been satisfied. This notification letter shall include a statement of the number of hours that fuel oil was fired during the last 12 month period, and, if fuel oil was fired for any period during the last 12 months, a copy of the most recent fuel records that document compliance with the percent sulfur content limit in accordance with Condition XV.A.15, below. [Rules 62-297.310(7)(a) 3 and 5, F.A.C.]

14. Compliance with the fuel sulfur content requirements of Condition XV.A.3., above, shall be demonstrated during any VE test conducted while burning oil, by submitting either of the following with the VE test report:

- A. copy of a fuel oil analysis from your fuel oil supplier representative of the oil used during the compliance test;

- B. results of the fuel oil analysis for an as-burned fuel oil sample taken during the compliance test.

Fuel sampling and analysis shall be in accordance with 40 CFR 60 Appendix A, Method 19, Section 5.2.2 (Liquid Fossil Fuel). [Rules 62-4.070(3), & 62-204.800(7)(e), F.A.C., & 40 CFR 60.44c(g) & (h)]

15. In order to document compliance with the requirements of Conditions XV.A.2, 3, and 11, the permittee shall maintain a record of the type of fuel (natural gas or No. 2 oil) used in the auxiliary boiler during each period of operation. The records shall include the total hours of operation for each period of burning No. 2 oil with a monthly total of oil-fired operating hours for the boiler for each calendar month. These records shall be recorded in a permanent form suitable for inspection upon request, and shall be retained for at least a two year period. [Rule 62-4.070(3), F.A.C.]

16. The permittee shall maintain a (daily) record of the quantity of each fuel used in the boiler for each day of operation. These records shall be recorded in a permanent form suitable for inspection upon request, and shall be retained for at least a two year period. [Rule 62-204.800, F.A.C., and 40 CFR 60.48c(g) & 60.48c(i)]

17. Ongoing compliance with the fuel oil sulfur content requirements of Condition XV.A.3 shall be demonstrated through fuel supplier documentation of fuel oil sulfur content for each shipment of oil delivered for use in the boiler. Fuel sampling and analysis shall be in accordance with 40 CFR 60 Appendix A, Method 19, Section 5.2.2 (Liquid Fossil Fuel). (See Condition XV.A.18) The records shall include a "fuel supplier certification" (40 CFR 60.48c(f)) consisting of the name of the oil supplier and a statement from the oil supplier that the oil complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, "*Standard Specification for Fuel Oils*". These records shall be recorded in a permanent form suitable for inspection upon request, and shall be retained for at least a two year period. [Rule 62-4.070(3), F.A.C., and 40 CFR 60.46c(e), 60.48c(e)(11), 60.48c(f) and 60.48c(i)]

18. The permittee shall keep readily accessible records showing the dimensions of the fuel oil storage tank and an analysis showing the capacity of the storage tank. The records shall be kept for the life of the storage tank. [Rule 62-204.800, F.A.C., and 40 CFR 60.116b(a) and 60.116b(b)]

19. The permittee shall provide the Air Programs of the Southwest District Office of the Department and the Pinellas County Department of Environmental Management the following written notifications in accordance with 40 CFR 60.48c(a):

- A. Start of Construction - Provide the date construction begins on the auxiliary boiler, within thirty (30) days of that date.

- B. Initial Startup - Provide the estimated date of the initial startup of the auxiliary boiler, not more than sixty (60) days nor less than thirty (30) days prior to such date.
- C. Startup - Provide the actual date of the initial startup of the auxiliary boiler, not more than fifteen (15) days after such date. This notification shall include a statement confirming the design heat input rate of the boiler and the fuels to be combusted in the boiler.

[Rule 62-204.800, F.A.C., and 40 CFR 60.48c(a)]

19. The permittee shall submit quarterly reports of the fuel supplier sulfur content certification records required by Condition XV.A.15. In addition to the above, the quarterly report shall include a certified statement signed by the owner or operator of the Facility that the records of the fuel supplier certifications submitted represent all of the fuel combusted during the quarter. The quarterly reports shall be submitted to the Air Quality Division of the Pinellas County Department of Environmental Management within 30 days of the end of the quarter being reported. [Rule 62-204.800, F.A.C., and 40 CFR 60.48c(e)(11)]

20. The permittee shall include emissions from the auxiliary boiler and fuel oil storage tank in DEP Form 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility," submitted to the Air Program of the Pinellas County Department of Environmental Management for the Facility each calendar year on or before March 1 for the preceding calendar year.