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Governor

Department of Environmental Protection

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Colleen M. Castille
Secretary

- CERTIFIED MAIL - RETURN RECEIPT REQUESTED -

April 10, 2006

Marc C. Bruner, Ph.D
Solid Waste Authority of Palm Beach County
7501 North Jog Road
West Palm Beach, Florida 33412

RECEIVED
APR 13 2006
ENVIRONMENTAL PROGRAMS

RE: North County Resource Recovery Facility
Modification to Conditions of Certification
DEP Case Number PA 84-20G
OGC Case Number 06-0276

ORDER MODIFYING CONDITIONS OF CERTIFICATION

Dear Dr. Bruner:

On February 3, 2006, the Department issued a Prevention of Significant Deterioration Permit, No. PSD-FL-108F, for the North County Resource Recovery Facility (NCRRF) Biosolids Pelletization Facility. Pursuant to Rule 62-17.211(4), Florida Administrative Code ("F.A.C."), the Department is required to modify the Conditions of Certification for this facility to conform them to the PSD permit.

The conditions of Certification shall be modified as follows:

I. through XIII. No change.

XIV. Operation

A. Air

1. Prevention of Significant Deterioration Permit Number PSD-FL-108F, Air Construction Permit Numbers 0990234-006-AC and 0990234-008-AC, which are attached as Attachment A, Attachment B and Attachment C, respectively, are incorporated by reference herein as part of this Certification. The provisions of Prevention of Significant Deterioration Permit Number PSD-FL-108F, Air Construction Permit Numbers 0990234-006-AC and 0990234-008-AC shall be conditions of this certification. The licensee shall comply with the

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substantive provisions and limitations set forth Prevention of Significant Deterioration Permit Number PSD-FL-108F, Air Construction Permit Numbers 0990234-006-AC and 0990234-008-AC as part of these Conditions of Certification, and as those provisions may be modified in the future by the Department. Such provisions shall be fully enforceable as conditions of this certification. Any violation of such provisions shall be a violation of these Conditions of Certification.

2. Title V Air Operation Permit Number 0990234-004-AV, which is attached as Attachment D, is incorporated by reference herein as part of this Certification. The provisions of Title V Air Operation Permit Number 0990234-004-AV shall be conditions of this certification. The licensee shall comply with the substantive provisions and limitations set forth in Title V Air Operation Permit Number 0990234-004-AV as part of these Conditions of Certification, and as those provisions may be modified in the future by the Department. Such provisions shall be fully enforceable as conditions of this certification. Any violation of such provisions shall be a violation of these Conditions of Certification.

3. The operation of the Resource Recovery Facility shall be in accordance with all applicable provisions of Chapter 62-204, 62-210, 62-256, 62-296, 62-701, and 62-704, 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 and 2~~

~~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: 70% removal or 30 ppmvd at 7% O₂, whichever is less stringent (24-hour geometric mean);~~

~~(3) Nitrogen Oxides: 0.48 lbs/MBtu heat input.~~

~~(4) Carbon Monoxide: 400 ppmvd corrected to 7% O₂ (1-hour average); 200 ppm ppmvd corrected to 7% O₂ (24-hour average);~~

~~(5) Lead: 0.0004 lbs/MBtu heat input.~~

~~(6) Mercury: 3200 grams/day for the entire facility or when firing sludge or 0.00024 lbs/MBtu whichever is more stringent.~~

~~(7) Odor: there shall be no objectionable odor at the site boundary.~~

(8) — Visible emissions: the opacity from each unit shall not exceed 10%, six minute average. CEM readings shall be excluded from averaging calculations when the process is not operating.

(9) — Fluoride: 0.0032 lb/MBtu heat input

(10) — Beryllium: 7.3×10^{-7} lb/MBtu heat input

(11) — VOC: 0.016 lb/MBtu heat input

(12) — Hydrogen Chloride: 90% removal or 25 ppmvd at 7% O_2 , whichever is less stringent (24 hour average).

(13) — Dioxins/Furans: Emissions of Total dioxins/furans (Tetra through Octa-chlorinated dibenzo-p-dioxins and dibenzofurans) shall not exceed 60 ng/dscm at 7% O_2 .

b. — The height of the boiler exhaust stack shall not be less than 250 feet above grade.

e. — The maximum boiler heat input shall not exceed 412.5 Mbtu per hour. This corresponds to a name plate rating of 324,000 pounds per hour steam capacity.

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, HCl, VOC, mercury, dioxins and furans, and lead shall be determined in accordance with Florida Administrative Code Rule 62-296, DEP Methods 1, 2, 3, and 40 CFR 60, Appendix A, Methods 5, 6 or 6C, 7, 8, (modified with prefilter), 10, 12, 13A or 13B (or modified method 5 for fluorides), and 18, 19, 23, 26, and 101A or other methods as approved by the DEP. The stack test for each unit shall be performed at $\pm 10\%$ of the maximum heat input rate of 360.0×10^6 Btu per hour or the maximum charging rate of 58,333 pounds of MSW per hour. Compliance with the beryllium emission limitation shall be determined in accordance with 40 CFR 61, Method 103 or 104, 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. — Emission Control Equipment

a. — The boiler particulate emission control devices shall be designed and constructed to achieve a maximum emission rate of 0.015 grains per dscf corrected to 12%

~~CO₂. All other particulate control devices shall be designed to meet the provisions of section 17-2.610.~~

~~b. The fluoride, 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, SO₂, NO_x, CO, and opacity. The monitoring devices shall meet the applicable requirements Of Chapter 62-296.405(1)(f), F.A.C., 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, and 40 CFR 60.7 (a)(5). Recertification 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 shall be provide 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 62-297.310(6), F.A.C.. Drawings of testing facilities including sampling port locations as required by Section 62-297.310(6) 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 from each unit, including mercury, beryllium, and fluoride, performed by a commercial testing firm within 180 days of the issuance of this permit. A sampling test of the emissions from each unit, including mercury, shall then be performed by a commercial testing firm annually thereafter, except for beryllium and fluoride which shall be sampled every fifth year thereafter. Thirty days prior notice of the initial sampling test shall be provided to the Southeast District and PBCHD. Fifteen days prior notice shall be provided for subsequent sampling tests.~~

~~4. Reporting~~

~~a. Two copies of the results of the emissions tests for the pollutants listed in XIV A.1.a. shall be submitted within forty five days of the last sampling run to the Southeast District Office and PBCHD.~~

b. ~~—Emissions monitoring shall be reported to the Southeast District Office and PBCHD on a quarterly basis in accordance with Section 62-297.310(8), F.A.C., 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 DEP Southeast District Office and PBCHD.~~

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 the outside air no more than 10% opacity as determined by DEP Method 9 for unconfined resource recovery processes. Proper techniques shall also be used to control such emissions to prevent them from crossing the property line to no more than three (3) minutes (cumulative) in any fifteen (15) minute period as determined by 40 CFR 60, Appendix A, Method 22, with observations being made along the property line. Visible emissions shall not include uncombined water vapor or engine exhausts.~~

6. ~~—Landfill Gas Collection and Flare System~~

a. ~~—These emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200, F.A.C., Definitions potential to emit (PTE)]~~

b. ~~—The owner or operator shall comply with the applicable requirements of 40 CFR 60 Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills. [Rule 62-204.800(7)(b), F.A.C., and 40 CFR 60 Subpart WWW]~~

c. ~~—The owner or operator shall not allow more than 1800 scfm of landfill gas to be directed to each flare. The actual flow rate shall be determined for each flare on a monthly average basis by dividing the measured flow by the hours that each flare was operated each month. Compliance with this limitation shall be by measuring shall be by measuring landfill gas flows to each flare and recording flows with a totalizing meter. Records of the totalizing meter values shall be recorded in an operators log monthly or whenever the meter is reset for any purpose, whichever is more frequent. The owner or operator shall maintain a strip chart recorder to record the flow rate to each flare as a backup device in the event that the totalizer meter is not functioning. The strip chart recorder shall also be used in conjunction with an operator's log to document the hours each month that each flare was operated. [Rule 62-4.070(3), F.A.C., and request of the applicant]~~

d. ~~—Pursuant to 40 CFR 60.18, General Control Device Requirements, the owner or operator shall comply with the following requirements for flares.~~

~~(1) — (a) — Flares shall be designed for and operated with no visible emissions as determined by the methods specified in condition XIV.A.6.d.(4), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.~~

~~(b) — Flares shall be operated with a flame present at all times, as determined by the methods specified in condition XIV.A.6.d.(4).~~

~~(c) — Flares shall be used only with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted shall be determined by the methods specified in XIV.A.6.d.(4).~~

~~(d) — (1) Non-assisted flares designed for and operated with an exit velocity, as determined by the methods specified in XIV.A.6.d.(4)(d), and less than 122 m/sec (400 ft/sec) are allowed.~~

~~(2) — Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.~~

~~(3) — Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.~~

~~(4) — (a) — Reference Method 22 shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.~~

~~(b) — The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.~~

~~(c) — The net heating value of the gas being combusted in a flare shall be calculated using the following equation:~~

$$H_T = K \sum_i (C_i H_i) \quad i = 1, 2, \dots, n$$

where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25°C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20°C;

K = Constant, 1.740×10^{-7} (1/ppm) (g mole/scm) (MJ/kcal) where the standard temperature for (g mole/scm) is 20°C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 (Incorporated by reference as specified in 40 CFR 60.17); and

H_i = Net heat of combustion of sample component i , kcal/ g mole at 25°C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 (incorporated by reference as specified in 40 CFR 60.17) if published values are not available or cannot be calculated.

(d) — The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross-sectional area of the flare tip.

(e) — The maximum permitted velocity, V_{max} , for flares complying with condition XIV.A.6.d.(4) shall be determined by the following equation:

$$\text{Log}_{10}(V_{max}) = \frac{(H_T + 28.8)}{31.7}$$

where:

V_{max} = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

H_T = The net heating value as determined in paragraph (f)(3).

[Rule 62-204.800(7)(b), F.A.C., and 40 CFR 60.18]

(e). — The owner or operator shall annually determine and report the actual exit velocity of each flare using the methods specified in 40 CFR 60.18. The owner or operator shall annually analyze and report the sulfur content of the landfill gas directed to each flare using ASTM Method D1072-90, or later method. The actual exit velocity and

sulfur content shall be reported to the Department as an attachment to the facility's annual operating report. [Rule 62-4.070(3), F.A.C., and requirement of previous PSD FL 108(B)]

B. through L. No change.

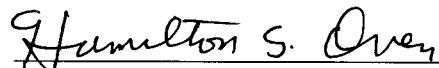
XVI. Water Management District Conditions - General

A. through L. No change.

K. Should the additional industrial supply demand for the operation of the Biosolids Pelletization Facility cause the total demand for the North County Resource Recovery Facility to exceed the Facility's allocation for withdrawal from the surficial aquifer, the demand for the Biosolids Pelletization Facility shall be provided from an alternate source other than the surficial aquifer. Should reclaimed water become available as an alternate source, the licensee shall provide an End User Feasibility Evaluation pursuant to Section 3.2.3.2 of the Water Use Basis of Review.

XVII. through XX. No change.

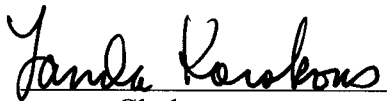
Executed in Tallahassee, Florida.



Hamilton S. Oven, P.E.

Administrator, Siting Coordination Office

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52
Florida Statutes, with the designated
Department Clerk, receipt of which is
hereby acknowledged.



Clerk

4-10-06

Date

CC: Scott Goorland, Esquire
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