Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

PERMITTEE

Covanta Lake II, Inc.
3830 Rogers Industrial Park Road
Okahumpka, Florida 34762

Air Permit No. 0690046-011-AC
Permit Expires: March 1, 2013
Minor Air Construction Permit

Authorized Representative:
Mr. Gary Main, Facility Manager

Lake County Resource Recovery Facility
Temporary Leachate Injection Project

PROJECT

This is the final air construction permit, which authorizes the temporary injection of landfill leachate into the lime spray dryer absorbers (scrubbers) that are part of the air pollution control equipment of the two mass-burn municipal waste combustors (Units 1 and 2) at the Lake County Resource Recovery Facility. The resource recovery facility is categorized under Standard Industrial Classification No. 4953. The existing facility is located in Lake County at 3830 Rogers Industrial Road, Okahumpka. The UTM Coordinates are: Zone 17; 413.12 kilometers (km) East; and, 3179.21 km North; Latitude: 28° 44' 22" North; and, Longitude: 81° 53' 23" West.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions). As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

STATEMENT OF BASIS

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

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida
Electronic Signature

Office of Permitting and Compliance
Division of Air Resource Management
Department of Environmental Protection
Tallahassee, Florida

Jeffery F. Koerner
2011.12.22 09:46:06 -05'00'

CERTIFICATE OF SERVICE

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

Mr. Gary Main, Covanta Lake II, Inc.: gmain@covantaenergy.com
Mr. Brad James, P.E., Trinity Consultants: bjames@trinityconsultants.com
Ms. Caroline Shine, DEP Central District Office: caroline.shine@dep.state.fl.us
Ms. Lynn Scearce, DEP OPC: lynn.scearce@dep.state.fl.us
Ms. Barbara Friday, DEP OPC: barbara.friday@dep.state.fl.us

Clerk Stamp

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

Elizabeth Walker
2011.12.22 10:18:34
-05'00'

FACILITY DESCRIPTION

The Lake County Resource Recovery Facility consists of two identical 288 tons per day (TPD) mass-burn municipal waste combustors (Units 1 and 2) and associated support equipment. The resource recovery facility is categorized under Standard Industrial Classification Code No. 4953. The facility is located in Lake County at 3830 Rogers Industrial Park Road, Okahumpka. The UTM Coordinates are: Zone 17; 413.12 km East; and 3179.21 km North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to Ambient Air Quality Standards.

Each furnace is equipped with an aqueous ammonia (NH_3) injection system based on the principle of selective non-catalytic reduction for nitrogen oxides (NO_X) control. After heat recovery for electrical energy production, the exhaust gas from each furnace is further cooled by injection of water and slaked lime slurry into a spray dryer absorber (scrubber) where acid gases react with lime and are converted to solid reaction products. Activated carbon is injected after the scrubber for mercury (Hg) and dioxin/furan (D/F) control. Fly ash, including reaction products from the scrubber and the spent activated carbon are removed in a fabric filter baghouse. The exhaust is conveyed via an induced draft fan into a flue located within the facility stack.

The facility is equipped with continuous emission and opacity monitoring systems (CEMS and COMS) for carbon monoxide (CO), sulfur dioxide (SO_2), NO_X, and visible emissions (VE). Annual stack testing is required for particulate matter (PM), hydrogen chloride (HCl), mercury, dioxin/furan, cadmium and lead.

Steam output from the two processing trains drives a 15.7 megawatts steam turbine-electric generator. The fly ash, stoker grate bottom ash and other wastes are combined and transported to a Class I landfill or ash monofill having an in-place bottom liner and leachate collection system.

PROPOSED PROJECT

The applicant requests authorization to replace the reverse osmosis (RO) reject water injected into the scrubbers with leachate generated at the Lake County (Astatula) Landfill near Tavares. In the proposed process, RO reject water presently injected into the scrubbers would instead be injected into the furnace through some unused aqueous NH_3 injection ports.

This project will affect the following emissions units (EU).

EU No.	Emission Unit Description
001	288 TPD (maximum) Municipal Solid Waste Combustor & Auxiliary Burners – Unit 1
002	288 TPD (maximum) Municipal Solid Waste Combustor & Auxiliary Burners – Unit 2

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants.
- The facility does not operate units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the PSD of Air Quality.
- The facility is subject to the applicable provisions of Title 40 Code of Federal Regulations (CFR), part 60 Subpart A - General Provisions and Subpart Cb - Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The Permitting Authority for this project is the Office of Permitting and Compliance in the Division of Air Resource Management of the Department. The mailing address for the Office of Permitting and Compliance is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Central District Office at: 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767. The telephone numbers of the Central District Office are: (407) 894-7555; and Fax: (407) 897-2966.

3. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

4. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

5. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

6. Source Obligation: At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification. [Rule 62-212.400(12), F.A.C.]

7. Application for Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V air operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

B. Temporary Leachate Injection Project (EU 001 and EU 002)

This section of the permit addresses the following emissions units.

ID No.	Emission Unit Description
001	288 TPD (maximum) Municipal Solid Waste Combustor & Auxiliary Burners – Unit 1
002	288 TPD (maximum) Municipal Solid Waste Combustor & Auxiliary Burners – Unit 2

COMPLIANCE WITH EXISTING PERMIT CONDITIONS

1. Existing Permits: This permit supplements all existing valid permits. The permittee shall continue to comply with all applicable conditions from valid air construction and facility Title V operation permits. [Permit No. 0690046-010-AV]

EQUIPMENT

2. Temporary Leachate Storage Tank: The permittee is authorized to temporarily install and operate a temporary storage container during the temporary leachate injection project. Tanker trucks will fill the storage container with the leachate using the existing piping system at the facility. [Application No. 0690046-011-AC; and Rules 62-4.070(3), and 62-212.300 F.A.C.]

PERFORMANCE RESTRICTIONS

3. Leachate Injection Project: For Units 1 and 2, the permittee is temporarily authorized to replace the RO reject water injected into the scrubbers with municipal landfill leachate. The RO reject water will be temporarily injected into the furnace through unused aqueous NH_3 injection ports. Operational and emissions data will be collected to evaluate overall impacts in support of a future permanent request to use leachate as an alternative to the RO reject water. [Application No. 0690046-011-AC; and Rule 62-4.070(3), F.A.C.]

4. Hours of Operation: Continuous operation of the leachate injection project is permitted through February 28, 2013. [Application No. 0690046-011-AC; and Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

EMISSIONS LIMITING AND PERFORMANCE STANDARDS

5. Performance Requirements – Leachate Injection Project: During the temporary leachate injection project, the permittee shall comply with all terms and conditions in the current Title V air operation permit. If the temporary injection of the leachate into the scrubbers results in operation that is not in accordance with the conditions of the Title V permit or this air construction permit, the permittee shall cease the temporary demonstration project as soon as possible and immediately notify the Compliance Authority (by phone, fax, or email). The project shall not resume until appropriate actions have been taken to correct the problem. [Application No. 0690046-011-AC; and Rule 62-4.130, F.A.C.]

6. Objectionable Odor Prohibited: No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. An "objectionable odor" is defined as any odor present in the outdoor atmosphere, which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance." [Rule 62-296.320(2), F.A.C.]

MONITORING AND TESTING

7. Monitoring of Operations: During the course of the project, emissions shall be determined by the CEMS and COMS for opacity, CO, NO_X and SO_2 for purposes of demonstrating continuous compliance with the emissions limits while practicing leachate injection. [Application No. 0690046-011-AC; and Rule 62-297.310(7), F.A.C.]

8. Leachate Injection Emissions Testing: During a scheduled, required annual compliance testing after issuance of this permit, each emissions unit shall demonstrate compliance with the emissions standards for VE, PM, mercury, cadmium, lead and HCl while practicing leachate injection. At least one unit shall be tested for and demonstrate compliance with the emissions standard for dioxin/furan while practicing leachate injection. If the permittee is not able to practice leachate injection during the regular compliance stack test(s), the permittee may schedule and conduct separate stack testing before or after the regularly scheduled test, but within the time frame allotted by this permit (before March 1 2013).
[Application No. 0690046-011-AC; 40 CFR 60, Subpart Cb; and Rule 62-297.310(7), F.A.C.]

CONTINUED OPERATION

9. Permanent Leachate Injection: To permanently inject leachate into Units 1 and 2 scrubbers, the permittee shall submit an application for an air construction permit consisting of an updated version of the previous application and a summary report. The summary report shall include: the actual schedule and overall description of the temporary leachate injection project; any operational issues encountered during the course of the project; a summary of historical stack tests conducted before the temporary leachate injection project compared with stack test(s) conducted while practicing leachate injection; an updated estimate of net emissions increases related to permanent leachate injection; and any updated design features, including permanent equipment and new construction activities. [Rule 62-4.070(3), F.A.C.]