Covanta Lake II, Inc.
Lake County Resource Recovery Facility
Title V Air Operation Permit Revision
Final Permit Revision No. 0690046-013-AV

APPLICANT

The applicant for this project is Covanta Lake II, Inc. The applicant's responsible official and mailing address are: Gary Main, Facility Manager, Covanta Lake II, Inc., Lake County Resource Recovery Facility, 3830 Rogers Industrial Park Road, Okahumpka, Florida 34762.

FACILITY DESCRIPTION

The applicant operates the existing Lake County Resource Recovery Facility, which is located in Lake County at 3830 Rogers Industrial Road in Okahumpka, Florida.

This facility consists of two identical 288 tons per day (TPD) mass-burn municipal waste combustors (Units 1 and 2) and associated support equipment. 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.

The facility also has an emergency diesel-fired fire pump engine (Caterpillar) rated at 185 HP (EU 004) which is regulated under 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE) adopted in Rule 62-204.800(11)(b), F.A.C.

Also included in this permit are miscellaneous insignificant emissions units and/or activities.

PROJECT DESCRIPTION

The purpose of this permitting project is to revise the existing Title V air operation permit No. 0690046-010-AV for the above referenced facility to incorporate the applicable requirements from air construction permit No. 0690046-012-AC. The construction permit authorized the permanent use of landfill leachate in the lime slurry for the spray dryer absorbers that scrub the exhaust of two mass-burn municipal waste combustors (Units 1 and 2) at the Lake County Resource Recovery Facility.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

- Application for a construction permit requesting authorization to temporarily inject landfill leachate into lime spray dryer absorbers that scrub the exhaust of Units 1 and 2 was received on July 29, 2011.
- The Department issued construction permit No. 0690046-011-AC, which authorizes the temporary injection of landfill leachate on December 22, 2011.
- Application for a construction permit requesting authorization to permanently inject landfill leachate into lime sprays dryer absorbers and revisions to Title V permit conditions regarding the acceptance and processing of non-hazardous solid and liquid waste was received on July 13, 2012.

- The Department issued a Request for Additional Information (RAI) dated August 15, 2012 with respect to the requested changes in the fuel slate.
- The Department issued construction permit No. 0690046-012-AC, which authorizes the permanent injection of landfill leachate on October 5, 2012.
- Additional Information Response received via e-mail on October 23, 2012.
- Request for Additional Information dated and sent via e-mail on November 2, 2012 with the respect to the projected future actual emissions.
- Additional Information Response received via e-mail on December 17, 2012.
- The Department distributed a draft/proposed Title V Air Operation Permit package on January 22, 2013.
- The Public Notice published on March 2, 2013.

PRIMARY REGULATORY REQUIREMENTS

Title IV: The facility does not operate units subject to the acid rain provisions of the Clean Air Act.

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility is a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The facility is identified as a major source of hazardous air pollutants (HAP) and operates units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

CAIR: The facility is not subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

CAM: Emissions units at this facility are not subject to Compliance Assurance Monitoring (CAM) for one or more of the following reasons: they do not trigger the potential pre-air pollution control device major source emission thresholds; they demonstrate continuous compliance with a continuous emission monitoring system (CEMS); they are not equipped with air pollution control device(s); they are equipped with device(s) which are considered to be inherent to the process/operation; or, they satisfy CAM by meeting the post-1990 40 CFR 60 Subparts Cb/Eb federal monitoring requirements for the same or similar air pollutants.

PROJECT REVIEW

This project incorporates the applicable requirements from air construction permit No. 0690046-012-AC that authorized the permanent 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.

To reflect the changes and conditions contained in permit No. 0690046-10-AV, the following conditions of the Title V permit are revised as indicated below. ~~Strikethrough~~ is used to denote the deletion of text. Double-underlines are used to denote the addition of text. All changes have also been emphasized with yellow highlight within the draft permit document. Where applicable, the permit has been re-numbered to reflect the additions and deletions.

Essential Potential to Emit (PTE) Parameters

A.5. Methods of Operation - Fuel.

j. *Leachate Injection.* The facility is authorized to permanent 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 leachate injection project may operate continuously (8,760 hours/year).

[Rules 62-4.160(2), 62-210.200 and 62-213.440(1), F.A.C., AC35-115379/PSD-FL-113(C), 0690046-003-AC/PSD-FL-113(E), ~~and~~ 0690046-008-AC/PSD-FL-113(H), and Permit No. 0690046-012-AC; and Rule, 62-4.070(3) and 62-210.200(PTE); F.A.C.]

Monitoring of Operations

A.33. Leachate Injection Monitoring of Operations. 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. [Permit No. 0690046-012-AC, and Rule 62-297.310(7), F.A.C.]

Test Methods and Procedures

A.40. Leachate Injection Emissions Testing. During a scheduled, required annual compliance testing, 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 during the regular compliance stack test 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. [Permit No. 0690046-012-AC; 40 CFR 60, Subpart Cb; and Rule 62-297.310(7), F.A.C.]

Other Requirements

A.48. Leachate Injection Performance Requirements. During the permanent leachate injection, the permittee shall comply with all terms and conditions in the current Title V air operation permit. If the permanent injection of the leachate into the scrubbers results in operation that is not in accordance with the conditions of the Title V permit or the air construction permit, the permittee shall cease the permanent 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. [Permit No. 0690046-012-AC; and Rule 62-4.130, F.A.C.]

Due to the insertion of the Specific Conditions **A.33., A.40.** and **A.48.**, the existing Specific Conditions **A.33., A.40.** and **A.48.** have been renumbered to **A.34., A.42.** and **A.49.**

CONCLUSION

This project revises Title V air operation permit No. 0690046-010-AV, which was effective on November 21, 2011. This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-210 and 62-213, F.A.C.