Title V Air Operation Permit Renewal
Permit No. 0690046-010-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 mass-burn municipal solid waste combustors (MSWC) Unit 1 and Unit 2 (EU 001 and EU 002), with auxiliary burners, lime storage and processing facilities, an activated carbon storage facility (EU 003), ash storage and processing facilities, a metals recovery system, cooling towers, and ancillary support equipment. Both MSWC Units 1 and 2 began commercial operation on August 22, 1990. Municipal solid waste (MSW) is brought to the facility by truck, unloaded, and pushed into the bunker in the tipping hall. An overhead crane is used to mix the waste and separate unacceptable items. There are four methods of conveying MSW to a combustor unit: a grapple system to Unit 1 or Unit 2; an inclined conveyor to Unit 1; a bucket conveyor to Unit 1 or Unit 2; and, a package conveyor to Unit 2. Each MSWC processing train consists of a feed hopper, a mass-fed waterwall furnace with a horizontal grate system, a spray dryer absorber system (scrubber), a baghouse filter system, an induced draft fan, and other ancillary equipment. Each furnace is equipped with a selective non-catalytic reduction (SNCR) system for the removal of nitrogen oxides. The combustion gases exiting each furnace pass through a duct where activated carbon is injected for mercury and dioxin/furan control, then through a spray dryer absorber system where lime slurry is injected for acid gas neutralization. Particulate matter (consisting of fly ash, activated carbon, reacted salts and un-reacted lime) is then removed by the baghouse filter system. Following these control devices, emissions from the two units are emitted through individual flues contained within a common stack.

Bottom ash from the furnaces, as well as the fly ash from the scrubbers and baghouses, is processed in an ash handling system and transported off-site to municipal solid waste ash monofills via truck or rail. Ferrous metals are continuously recovered from the ash residue. Steam output from the two processing trains drives a turbine-generator for the generation of electricity. The facility is rated for a maximum of 15.7 megawatts (MW) of electrical energy production. The auxiliary burners associated with the combustors are permitted to fire distillate fuel oil or gas (e.g., natural and propane); however, the facility currently uses only natural gas.

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 renew the existing Title V permit for the above referenced facility.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Initial Title V Air Operation Permit No. 0690046-001-AV issued December 21, 2001.
Title V Air Operation Permit Revision/Renewal Permit No. 0690046-006-AV issued December 27, 2006.
Revised Title V Air Operation Permit No. 0690046-009-AV issued December 26, 2009.
Application for a Title V Air Operation Permit Renewal received May 16, 2001.
Draft Title V Air Operation Permit Renewal No. 0690046-010-AV issued **[Month day, year].**
Proposed Title V Air Operation Permit Renewal No. 0690046-010-AV issued **[Month day, year].**
Final Title V Air Operation Permit Renewal No. 0690046-010-AV issued **[Month day, year].**

PRIMARY REGULATORY REQUIREMENTS

Title III: The facility is identified as a major source of hazardous air pollutants (HAP).

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 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

No revisions were requested by the applicant as part of this project; however, the permit has been reformatted to reflect the current permit style.

In addition, the facility operates an existing emergency diesel-fired engine (Caterpillar) rated at 185 HP which has previously been included in the Title V permit as an unregulated unit. Because this engine is now subject to 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE), a new emissions unit section (Section III, Subsection C.) has been added to the permit to clearly reflect the new applicable requirements for emergency fire pump engines.

Finally, during the application review and permit processing, it was discovered that the previous Title V permits had imposed a particulate matter emissions limit of 0.1 lb/hr and an alternate visible emissions standard of 5% opacity on the activated carbon storage silo (EU 003) that were not based on applicable requirements. These requirements have been removed and replaced by the 20% opacity limitation that was originally established in air construction permit No. AC35-264176 (originally issued April 14, 1995, revised May 22, 19995 and September 13, 1995).

CONCLUSION

This project renews Title V air operation permit No. 0690046-006-AV, which was effective on December 27, 2006 (and revised by permit No. 0690046-009-AV on December 26, 2009). This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210 and 62-213, F.A.C.