Title V Air Operation Permit Renewal
Permit No. 1050004-031-AV

APPLICANT

The applicant for this project is Lakeland Electric. The applicant's responsible official and mailing address are: Tony Candales, Assistant General Manager of Production, 501 East Lemon Street, Lakeland, Florida 33801.

FACILITY DESCRIPTION

The applicant operates the existing C.D. McIntosh, Jr. Power Plant which is located in Polk County at 3030 East Lake Parker Drive in Lakeland, Florida.

This facility consists of three fossil fuel fired steam generators, three diesel powered engines, and two gas turbines. Fossil fuel fired steam generator Unit 1 is fired with natural gas, No. 6 fuel oil or on-specification used oil generated by the City of Lakeland. Fossil fuel fired steam generator Unit 2 is fired with natural gas, propane, No. 2 fuel oil or No. 6 fuel oil. Fossil fuel fired steam generator 3 is fired with coal, natural gas and petroleum coke. Gas Turbine Peaking Unit 1 is primarily fired with natural gas or No. 2 fuel oil with a maximum sulfur content of 0.5 percent by weight. McIntosh Unit 5, a 370 MW combined cycle stationary combustion turbine, is fired with natural gas, or No. 2 or superior grade fuel oil with a maximum sulfur content of 0.05 percent by weight. The three diesel engines are: a 25 horsepower non-emergency Lister Coal Tunnel Sump diesel engine; a 300 horsepower emergency Fire Water UPS Diesel No. 32 engine; and a 500 horsepower black-start CT Startup Diesel engine.

This facility also includes miscellaneous unregulated/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 effective January 1, 1999
Title V Air Operation Permit Renewal effective January 1, 2004
Title V Air Operation Permit Renewal effective January 1, 2009
Application for a Title V Air Operation Permit Renewal received May 17, 2013

PRIMARY REGULATORY REQUIREMENTS

Standard Industrial Classification (SIC) Code: 4911 – Electrical Generation.

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

Title IV: The facility operates 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 subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

Siting: Unit 3 was originally certified pursuant to the power plant siting provisions of Chapter 62-17, F.A.C.

CAM: Compliance Assurance Monitoring (CAM) applies only to Unit 3 for control of particulate matter emissions by use of an electrostatic precipitator (ESP).

GHG: The facility is identified as a major source of green house gas (GHG) pollutants.

PROJECT REVIEW

Several changes were made to the Title V permit renewal. Three existing engines were reclassified as regulated emissions units subject to the requirements of 40 CFR 63 Subpart ZZZZ, the Coal Tunnel Sump Engine (E.U. -008), the Fire Water Pump UPS Diesel Engine No. 32 (E.U. -010) and the CT Startup Diesel Engine (E.U. -011). The requirement to conduct a CO RATA, Specific Condition III.E.23., for Unit 5 was removed because Unit 5 does not have a CO monitor. Appendix U had the following changes: Fire Water Pump UPS Diesel Engine No. 31 (E.U. -009) no longer exists and was removed; General purpose diesel engines (E.U. -012) and Emergency generators (E.U. -013) are better described as portable pumps and welding equipment and have been combined under new E.U -033 under the title "Portable pumps and welding equipment"; and, the description of E.U. -020 was changed from Two to Four emergency diesel generators. Appendix U was changed as follows: Diesel Engine Peaking Units 1 and 2 (EU -002 and E.U. -003) status was changed to "limited use engines" under 40 CFR 63 Subpart ZZZZ and thereby became exempt from the NESHAP and with their operation as limited use engines now restricted to 100 hours per year the units are classified as unregulated. A new 25 kW propane fired emergency engine, exempt from the requirements of 40 CFR 60 Subpart JJJJ, was added to the insignificant emissions unit appendix. A specific condition requiring future compliance with 40 CFR 63, Subpart UUUUU, National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units was added where appropriate.

CONCLUSION

This project renews Title V air operation permit No. 1050004-023-AV, which was effective on JANUARY 1, 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, 62-213 and 214, F.A.C.