Gulf Power Company
Lansing Smith Plant

Title V Air Operation Permit Revision
Final Permit No. 0050014-021-AV

APPLICANT

The applicant for this project is the Gulf Power Company. The applicant's responsible official and mailing address are: Mr. Michael Burroughs, Vice President and Senior Production Officer, Gulf Power Company, Lansing Smith Electric Generating Plant, One Energy Place, Pensacola, Florida 32520-0328.

FACILITY DESCRIPTION

The applicant operates the existing Lansing Smith Electric Generating Plant, which is located in Bay County at 4300 County Road 2300, Southport, Florida. The existing facility consists of the following emissions units: two coal-fired steam generators (boilers), a Pratt & Whitney Twin-Pac combustion turbine peaking unit, and two gas-fired combined-cycle combustion turbine electrical generators with duct-fired heat recovery steam generators (HRSG). The two boilers are Acid Rain Phase II Units. The two combined-cycle combustion turbines are Acid Rain units. Pulverized coal is the primary fuel for the boilers. Distillate fuel oil is used to fire the combustion turbine and as a "back-up" fuel for the boilers. Natural gas is the only fuel allowed to be fired in the two combined-cycle combustion turbines.

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

PROJECT DESCRIPTION

The purpose of this permitting project is to revise existing Title V air operation permit No. 0050014-018-AV for the above referenced facility. The key differences compared with the previous Title V air operation permit are:

- Incorporation of applicable requirements from the air construction Permit No. 0050014-019-AC for the OpFlex peaking project, which is designed to expand the operating profile while maintaining optimal emissions levels for the existing Unit 3 combined cycle combustion turbine system (EU 004 and EU 005);
- Remove two internal combustion engines that have been removed from service;
- Include three new internal combustion engines;
- Delete two internal combustion engines, which is no longer operational and being retired from service.
- Include two new non-road engines as insignificant emission units; and
- Correct description of Emissions Unit 003, the Pratt & Whitney Twin-Pac combustion turbine peaking unit.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

We received the application for a Title V Air Operation Permit Revision on June 19, 2012.

PRIMARY REGULATORY REQUIREMENTS

Title III: The facility is identified as a potential 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 213, Florida Administrative Code (F.A.C.).

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

NESHAP: The facility operates units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) in Title 40, Part 63, of the Code of Federal Regulations (40 CFR 63).

NSPS: The facility operates units subject to the New Source Performance Standards (NSPS) in 40 CFR 60.

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

CAM: Units 001 and 002 are subject to Compliance Assurance Monitoring (CAM) for controlled emissions of particulate matter (electrostatic precipitators). Unit 003 is not subject to CAM because there is no add-on control equipment. Units 004 and 005 have a selective non-catalytic reduction system, but are not subject to CAM because compliance is demonstrated by Continuous Emissions Monitoring Systems (CEMS) for nitrogen oxides.

PROJECT REVIEW

Air Construction Permit No. 0050014-019-AC

This project incorporates the General Electric OpFlex Peak enhancement package designed to expand the peak power production profile for the existing Unit 3 combined cycle combustion system (EU 004 and EU 005). The enhancement controls the fuel distribution, which will broaden the operating range of the combustion turbines to increase flexibility and profitability. The peak fire function provides the ability to safely operate at a higher firing temperature while maintaining optimal emissions levels when demand for more output capacity is at a premium. The peak fire capability requires the installation of a Continuous Dynamics Monitoring (CDM) system to ensure that the combustion system parameters are kept at optimal performance. CDM is part of the remote dry low-NOx (DLN) tuning service provided by General Electric. The Title V air operation permit was revised to incorporate the applicable requirements from this federally enforceable air construction permit.

Appendix ICE

The following changes were made to Appendix ICE:

E.U. ID No.	Brief Description of Engine	Year Built	Displacement or Horsepower	Rule Applicability
010	Portable Welding machines, Miller - Bobcat250D	2009	3600 rpm, 18.8 HP	NSPS Subpart IIII and NESHAP Subpart ZZZZ
011	Diesel Emergency Sump Pump, PowerTech 6068TF275	2006	2400 rpm, 165 HP	
012	Emergency Generator at CCCT, Kohler (350REOZDD)	2006	2500 rpm, 153 HP	
013	Emergency Sump Pump, Gorman Rupp (Super TSERIES)	2006	1800 rpm, 550 HP	
014	Emergency Generator, Taylor (TMC175)	2006	1800 rpm, 274 HP	
	Existing Units			
009	Portable Welding machines (3 Units), Deutz MD 151	1995	3600 rpm, 16.3 HP	NESHAP Subpart ZZZZ
	Fire Pumps (2 Units), Detroit Diesel, 10647110 (4-71)	2001	4 cylinder, 2 Cycle	
	Emergency Generator, Kohler, Volvo engine, D250 9.6A60	2003	1800 rpm, 280 HP	
	Diesel Building Sump on pump room floor, Lister, HR4	2001	2200 rpm, 59 HP	

In addition to the three new engines identified above, the following are being removed: Carry Deck Cherry Picker, Shuttlelift Inc. Model No. 3330ELB is no longer operational and is being retired from service; and Emergency Diesel Sump Pump, Detroit, T-71 (4031)C could not be repaired and is being removed from service. These emissions units are listed under EU 009 in Appendix ICE for general purpose internal combustion engines.

The project also adds two new insignificant activities emissions units, Trailblazer Series 302 AC/DC welder (with 23 HP gasoline engine manufactured by Kohler) and a Broderson Manufacturing Corporation industrial crane with an 18 ton capacity (18 tons capacity with a Cummins 99 HP engine). These emissions units are non-road engines and are listed under insignificant activities in Appendix I.

CONCLUSION

This project revises Title V air operation permit No. 0050014-018-AV, which was effective on January 1, 2010. This Title V Air Operation Permit revision is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210, 62-213 and 62-214, F.A.C.