STATEMENT OF BASIS

Title V Air Operation Permit Renewal
Permit No. 1130173-010-AV

APPLICANT

The applicant for this project is Gulf Power Company. The applicant's responsible official and mailing address are: Mr. Michael Burroughs, Vice President, Power Generation and SPO, Gulf Power Company, Pea Ridge Cogeneration Facility, One Energy Place, Pensacola, Florida 32520.

FACILITY DESCRIPTION

The applicant operates the Gulf Power Peas Ridge Cogeneration Facility, which is located in Santa Rosa County at 4575 Highway 90 East in Pace, Florida.

The Gulf Power Pea Ridge facility is a cogeneration plant providing electrical power to the Gulf Power transmission grid and supplying steam to Taminco, Inc. The facility is located at the Taminco Methylamines Pace Plant. The facility contains one emission unit which consists of three 5-Megawatt combined-cycle cogeneration units. The turbines are manufactured by Solar, model Taurus 60S. The turbines and the heat recovery steam generator duct burners are fueled by pipeline quality natural gas. The heat recovery steam generators produce a maximum of 270,000 pounds per hour of 600 psig steam @ 650°F, for manufacturing operations at Taminco, Inc.

The turbines use both a lean fuel mix and a low NOx burner design to minimize NOx emissions. A catalyst is used to reduce carbon monoxide emissions by 90% and volatile organic compounds emissions by 50%.

The modes of operation for these cogeneration units include both a "normal" operating mode, and a "fresh air/duct burner mode." In the normal operating mode, the turbine/generators and the heat recovery steam generators produce both steam and electricity. Units B and C also are capable of operating in a "fresh air/duct burner" operating mode to produce steam for plant operation with the turbine not operating and fresh air replacing the turbine exhaust to the heat recovery steam generator. During the "normal mode", the maximum heat input to each combustion turbine is 60 MMBtu/hr, with an additional 90 MMBtu/hr heat input to the heat recovery steam generator duct burner. During the "fresh air/duct burner mode", the maximum heat input to each heat recovery steam generator duct burner is 130 MMBtu/hr.

The gas turbines are regulated by NSPS 40 CFR 60 subpart GG and the heat recovery steam generator/duct burners by subpart Dc, adopted and incorporated by reference in Rule 62-204.800(8)(b), F.A.C. Since only pipeline quality natural gas with a sulfur content of less than 10 grains/100SCF is used, turbine SO_2 emissions are substantially less than the standards contained in 40 CFR 60 subpart GG. Similarly, since only pipeline quality natural gas is combusted in the duct burners, the subpart Dc standards for fuel sulfur level, opacity, and SO_2 emissions and particulate matter emissions are not applicable, and the only applicable requirement in 40 CFR 60 subpart Dc is record keeping.

Emissions are limited to 40.0 pounds/hour NOx from the three cogeneration units combined while operating in the "normal mode" and 60.0 pounds/hour from the three cogeneration units combined with two operating in the "fresh air/duct burner mode." NOx emissions are limited to 187.1 tons/year per rolling 12-month period. Operation in the fresh air mode is limited to a combined total of 2,500 hours per year for units B and C, and total operation of units B and C is limited to 17,500 hours per year.

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

Application for a Title V Air Operation Permit Renewal received July 25, 2014
Notice of Intent to Issue Air Permit issued August 19, 2014
Public Notice Published August 26, 2014

PRIMARY REGULATORY REQUIREMENTS

Title III: The facility is not identified as a major source of hazardous air pollutants (HAP).

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 not a Prevention of Significant Deterioration (PSD)-major stationary source of air pollution in accordance with Rule 62-212.400, F.A.C.

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

NESHAP: The facility does not operate 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: Compliance Assurance Monitoring (CAM) does not apply to any of the units at the facility

PROJECT REVIEW

No changes were made during this renewal of permit 1130173-009-AV.

CONCLUSION

This project renews Title V air operation permit No. 1130173-009-AV, which was issued on March 19, 2010. 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.