Polk Power Partners, L.P.
Mulberry Cogeneration Facility

Final Permit No. 1050217-009-AV, Title V Air Operation Permit Renewal

APPLICANT

The applicant for this project is the Polk Power Partners, L.P.. The applicant's responsible official and mailing address are: Mr. Allen Czerkiewicz, Plant Manager, Polk Power Partners, L.P., 3600 County Road 555, Bartow, Florida, 33830.

FACILITY DESCRIPTION

The Mulberry Cogeneration Facility is located in Polk County at 3600 County Road 555, Bartow, Florida.

This facility is a 126 MW combined cycle cogeneration unit consisting of one GE model PG7111EA 82 megawatt (MW) combustion turbine (CT), one heat recovery steam generator (HRSG), one Foster Wheeler Limited 99 MMBtu/hr secondary boiler, and one 175 hp emergency fire pump. The CT is fired with natural gas and new No. 2 fuel oil, with natural gas being the primary fuel and new No. 2 fuel oil as backup fuel. The secondary boiler is fired solely by natural gas. Also included in this permit are miscellaneous insignificant emission units and/or activities.

The facility is owned and operated by Polk Power Partners, L.P. a subsidiary of Northern Star Generation LLC.

PROJECT DESCRIPTION

The purpose of this permitting project is to renew the Title V air operation permit for the above referenced facility.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Renewal received Electronic Permit Submittal and Processing System (EPSAP) on April 26, 2012.
Draft/Proposed Title V Air Operation Permit Renewal posted onto web site on July 13, 2012.
Public Notice published on July 25, 2012.
Notification to U.S. EPA Region 4 of Publication of Public Notice on July 30, 2012.

PRIMARY REGULATORY REQUIREMENTS

Title III: This facility is not a major source of hazardous air pollutants (HAP), based on the Title V air operation permit renewal application.

Since the facility is not a major source of HAP, the NESHAP (MACT) - 40 CFR 63, Subpart YYYY, Stationary Combustion Turbines, does not apply to the combustion turbine units.

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

Title IV: This facility does operate units subject to the acid rain provisions of the Clean Air Act.

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

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

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

The combustion turbine unit is regulated under NSPS - 40 CFR 60 Subpart KKKK, Standards of Performance for Stationary Combustion Turbines.

The secondary boiler is subject to NSPS - 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.

CAIR: This facility does operate units subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

Siting: This facility does not operate units subject to the power plant siting provisions of Chapter 62-17, F.A.C. The heat recovery steam generator (HRSG) services a steam generator with a rating of 44 megawatt (MW).

CAM: The emissions units at this facility are not subject to 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 federal monitoring requirements for the same or similar air pollutants.

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

PROJECT REVIEW

Changes were made in the format of this renewed Title V air operation permit.

Permit

- Engines. Engines in the previous permit, Permit No. 1050217-006-AV, were listed in Appendix U. The fire pump engine is now a 'regulated' emissions unit under recently promulgated federal regulations; specifically, 40 CFR 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE). The fire pump is included in this permit as a 'regulated' emissions unit within the body of the permit in Subsection C. An E.U. ID No. of 005 was assigned to the fire pump engine.
- Appendix I, List of Insignificant Emissions Units and/or Activities. Included the applicant's requested miscellaneous changes to the list of insignificant emissions units and/or activities.
- Appendix U, List of Unregulated Emissions Units and/or Activities. The Emissions Unit Identification Number (E.U. ID No.) 004 for "General purpose engines > 32,000 gal/yr" has been inactivated. This emissions unit had been previously established in general for engines. Engines are regulated differently now. The only stationary engine on-site is the fire pump.

CONCLUSION

This project renews Title V air operation permit No. 1050217-007-AV, which was effective January 1, 2008.

Mulberry Cogeneration Facility

http://www.northernstargen.com/mulberry.html