Duke Energy Florida, Inc. (DEF)
Anclote Power Plant

Permit No. 1010017-015-AV, Title V Air Operation Permit Renewal

APPLICANT

The applicant for this project is the Duke Energy Florida, Inc. (DEF). The applicant's responsible official and mailing address are: Mr. William Luke, Plant Manager, Duke Energy Florida, Inc. (DEF), Anclote Power Plant, 1729 Baillies Bluff Road, Holiday, Florida 34691-9753.

FACILITY DESCRIPTION

The Anclote Power Plant is located in Pasco County at 1729 Baillies Bluff Road, Holiday, Florida.

This existing facility consists of two fossil fuel fired steam generators, designated as Unit Nos. 1 and 2. These two units share a common stack. Unit Nos. 1 and 2 are authorized to fire pipeline quality natural gas only. Air pollutant emissions from these units are controlled by combustion design and operation. The facility also includes two 12-cell mechanical draft helper cooling towers, two natural gas-fired process heaters and an emergency diesel generator. Also located at the facility are miscellaneous unregulated/insignificant emissions units and/or activities.

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 on May 12, 2014 (complete).
Application for AC/PSD Permit Revisions received on May 12, 2014 (complete).

Draft AC/PSD Permit Revisions clerked (issued) on Month day, 2014.
Final AC/PSD Permit Revisions clerked (issued) on Month day, 2014.
Draft/Proposed Title V Air Operation Permit Renewal posted onto web site on Month day, 2014.
Public Notice published on Month day, 2014.

PRIMARY REGULATORY REQUIREMENTS

Standard Industrial Classification (SIC) Code: This facility is classified under SIC Code No. 4911 - Electrical Services.

North American Industry Classification System (NAICS) Code: This facility is classified under NAICS Code No. 221112 - Fossil Fuel Electric Power Generation.

Title I - HAP: As stated in the Facility Regulatory Classification section of Permit No. 1010017-013-AC, Natural Gas Conversion Project, upon the plant's conversion to the exclusive use of natural gas, this facility will no longer be a major source of hazardous air pollutants (HAP), based on the Title V air operation permit renewal application. The gas conversions were completed on July 1, 2013 for Unit 1 and on December 1, 2013 for Unit 2.

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 operates units subject to the acid rain provisions of the Clean Air Act.

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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 does not operate units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

This facility has engines which were potentially subject to the recently promulgated NSPS 40 CFR 60 Subpart IIII also known as (a.k.a.) NSPS "4-I's" or "CI-ICE" and 40 CFR 60 Subpart JJJJ a.k.a. NSPS "4-J's" or "SI-ICE." These federal regulations do not apply since these engines are 'existing' units under these subparts.

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.

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.

{Note: Major changes made with regard to content in the draft/proposed version of the renewed permit are highlighted in yellow double underline.}

Permit

- Title V Annual Emissions Fee Changes. Section 403.0872, Florida Statutes (F.S.) was amended by House Bill (HB) 999, effective July 1, 2013. A few very important changes were made in the amendment which apply to the Title V annual emissions fee, namely: 1) the Title V annual emissions fee is now required to be calculated based upon actual emissions rather than allowable emissions, as in the past twenty years; 2) the due date for submitting the Title V annual emissions fee was changed from March 1st to April 1st; and, 3) the fee form was repealed and the fee requirement has been merged into the EAOR software product.

  The previous specific conditions from Permit No. 1010017-012-AV for the AOR requirement (see Facility-wide Condition FW6.) and the Title V annual emissions fee requirement (see Facility-wide Condition FW7.) have been combined into one Facility-wide Condition FW7. in Section II. of this renewed permit.

- Incorporation of Permit No. 1010017-013-AC, Natural Gas Conversion Project. Permit No. 1010017-013-AC/PSD-FL-419 authorized construction to increase natural gas firing capability on Units 1 and 2; removed residual fuel oil and other liquid fuels as authorized fuels for Units 1 and 2; established a nitrogen oxides (NOx) emission standard of 0.30 pounds per million Btu heat input (lb/MMBtu) on a 12-month rolling average; and established a Best Available Control Technology (BACT) carbon monoxide (CO) emission standard of 0.15 lb/MMBtu on a 30-day rolling average. Included in this renewed permit the applicable requirements from Permit No. 1010017-013-AC/PSD-FL-419 which expires December 31, 2014:

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- Subsection III.A. Fossil Fuel Fired Steam Generator Unit Nos. 1 & 2 (E.U. ID Nos. 001 & 002) The removal of all references to oil-firing capability for Unit 1 and 2;
- The removal of fuel storage tanks (E.U. ID No. 004);
- The removal of the requirement to install and operate continuous opacity monitoring systems (COMS) from the Title V air operation and air construction (AC) permits from Unit 1 and 2, as these units are now defined as "gas-fired" units; and,
- Subsection III.C. Natural Gas-fired Process Heaters. Inclusion of the two nominal 16.5 MMBtu/hour (HHV) natural gas-fired process heaters in Subsection III.C. of the renewed permit.

- Relocatable Diesel-Fired Engine Driven Generator(s). The Relocatable Diesel-Fired Engine Driven Generator(s) (E.U. ID No. 008) previously included in Permit No. 1010017-012-AV, Subsection III.C., no longer exist(s) onsite, so this/these unit(s) are not included in this renewed permit.

Appendices

- Appendix BOP, Best Operational Practices for Startup and Shutdown. The new procedures for startup and shutdown are included in Appendix BOP.
- 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 Emission Units and/or Activities. E.U. ID No. 003, Surface Coating Operations, is reclassified from an unregulated emission unit in Appendix U, List of Unregulated Emission Units and/or Activities to an insignificant emissions unit in Appendix I, List of Insignificant Emissions Units and/or Activities. Also, the Diesel-Fired Air Compressor (E.U. ID No. 006) is removed from the Appendix U as it no longer exists onsite.
- Standardized Appendices - Appendices RR & TV. The Department uses standardized appendices in Title V air operation permits. Updated versions of Appendix RR, Facility-wide Reporting Requirements and Appendix TV, Title V General Conditions were included in this renewed permit.

CONCLUSION

This project renews Title V air operation permit No. 1010017-012-AV, which was effective January 1, 2010.

Anclote Power Plant

http://www.duke-energy.com/power-plants/oil-gas-fired/anclote.asp

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