UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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SEP 04 2012

Mr. Jeff Koerner
Bureau of Air Regulation
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Koerner,

We have reviewed the July 30, 2012, submission of the Prevention of Significant Deterioration (PSD) permit application for Anclote Power Generating Facility Natural Gas Fuel Conversion and the Florida Department of Environmental Protection's (FDEP) PSD draft permit and preliminary determination. Progress Energy Florida, Inc., the applicant, proposes to convert its existing steam generators and associated equipment from the use of heavy fuel oil and natural gas to the exclusive use of natural gas; the project is located in Pasco County, Florida. The modification will add three levels of natural gas burners to existing natural gas burners, two natural gas heaters, and will modify and replace other process equipment. The applicant also requested a change in the allowable hours of operation for two cooling towers. The emission units subject to a best available control technology (BACT) analysis include two 510 megawatt fossil fuel-fired steam generators and two natural gas heaters. The proposed project is subject to PSD review for carbon monoxide (CO), and the draft permit also establishes limits for nitrogen oxides (NO_x).

Based on our review of the application and the preliminary determination, we have the following comments:

1. The applicant initially provided emission calculations in the permit application; however, the preliminary determination recalculated the emissions for the generators based on a revised heat input capacity. Nonetheless, there are a few points of concern in the emission calculations performed by both the applicant and the FDEP.

    a. Applicability for a modification involves a two-step process which includes evaluating the emissions increase (step 1) and then the net emissions increase (step 2) of the modification. In step 1, the applicant, should first compare the baseline actual emissions to the projected or potential emissions for only those emissions units with increased emissions. If the project shows a significant increase in emissions, a netting analysis is required. The netting analysis should include both increases and decreases from the current project as well as all other creditable emission increases and decreases over the contemporaneous period. This comprehensive applicability analysis does not seem to have been included in the application or the preliminary determination and should be provided by the

applicant before a final determination can be made regarding the applicability of PSD for CO and possibly volatile organic carbon emissions.

b. The application and the preliminary determination do not indicate if startup, shutdown, and fugitive emissions were included in the emission calculations. Table 1 of the application provides a summary of the emissions for the facility. Table 2 and Table 3 provide the maximum potential annual emissions for the generators and the natural gas heaters, respectively. However, from these tables it is unclear if these emission calculations include startup and shutdown, as well as any fugitive emissions. The applicant should clarify if these emissions were included in their calculations, and if not should add them.

2. The applicant performed a BACT analysis for the natural gas-fired boilers in section 4 of the application, and the preliminary determination further evaluated the applicant's BACT analysis, starting on page 15. The applicant and the FDEP determined the use of an oxidation catalyst not technically feasible due to the lack of demonstrated use and availability for large fossil fuel-fired boilers. However given that oxidation catalysts are available for boilers that are significantly smaller in size than the boilers proposed in this project, (*e.g.,* Port Dolphin LNG issued by the EPA), the FDEP should provide additional technical information why an oxidation catalyst cannot be used on very large boilers.

   The BACT analysis for the natural gas-fired boilers in the preliminary determination described a hypothetical cost comparison, page 19. However, the applicant did not provide a cost analysis in their application, and FDEP has not provided a detailed cost analysis in the preliminary determination. Since the preliminary determination includes this hypothetical statement and also a statement that an oxidation catalyst may be cost effective, it is unclear whether the FDEP has concluded that catalytic oxidation is technically or economically infeasible. This inconsistency should be clarified, and a full cost analysis should be included unless a demonstration can be made that catalytic oxidation is technically infeasible.

3. The following comments are to provide additional clarity in the preliminary determination:

   a. Table 7 in the preliminary determination is titled "Summary of the Applicant's Emissions Estimates and PSD Applicability." However, the table provides the emissions for only the two generators and does not contain the natural gas heaters or any other possible facility emissions. Additional tables should be added to the preliminary determination for each emission unit. Also, a summary table should be added that accounts for the netting analysis.

   b. The preliminary determination contains an evaluation of the applicant's BACT analysis, page 19. The analysis references municipal waste combustors as a comparable facility; however, there are a few large natural gas-fired boilers, generators, in the RACT/BACT/LAER clearinghouse that would provide a more relevant comparison (*e.g.*, Cleco Power Inc., LA).

If you have any questions regarding these comments or need additional information, please contact Eva Land at 404-562-9103.

Sincerely,

Kelly A Wh

for Gregg Worley,
Chief
Air Permits Section