



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

RECEIVED

OCT 06 2008

October 2, 2008

BUREAU OF AIR REGULATION

Ms. Trina L. Vielhauer, Chief  
Bureau of Air Regulation  
Florida Department of  
Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Dear Ms. Vielhauer:

Thank you for your letter dated August 20, 2008, regarding a Prevention of Significant Deterioration (PSD) preliminary determination and draft PSD permit for a proposed new JEA Greenland Energy Center (JEA) power plant to be located in Jacksonville, Duval County, Florida. The proposed project consists of the construction of two General Electric (GE) 7FA frame type simple cycle combustion turbines with a nominal output of 352 megawatts (MW) on natural gas and 380 MW on ultra low sulfur fuel oil (ULSFO). JEA proposes to fire each combustion turbine 3,500 hours per year on natural gas or alternatively, 3,000 hours per year on natural gas and 500 hours per year on ULSFO. The Region 4 office of the U.S. Environmental Protection Agency (EPA) has also recently received a second PSD application package for the conversion of the above proposed simple cycle combustion turbines into a combined cycle operating configuration. We agree with the Florida Department of Environmental Protection (FDEP) that the combined cycle conversion project PSD application be submitted as if the JEA power plant were initially planned for and designed as a combined cycle facility rather than as a modification to the simple cycle facility with associated emissions increases.

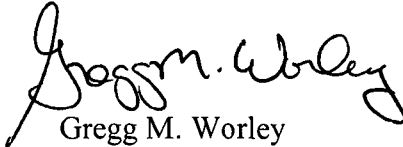
The EPA wishes to commend the FDEP on the thoroughness of its technical evaluation for the simple cycle project. Our comment on the preliminary determination package is as follows:

- FDEP should request that the applicant justify why a hot selective catalytic reduction (SCR) system like one recently permitted for control of large frame simple-cycle turbine nitrogen oxides (NO<sub>x</sub>) emissions in California, was not considered feasible for the JEA power plant project. A NO<sub>x</sub> emissions limit of 3.5 parts per million volume dry basis (ppmvd) corrected to 15 percent oxygen for natural gas firing was recently determined best available control technology (BACT) for an El Colton, LLC simple cycle combustion turbine project located in Colton, California. The limit is based on the use of a high temperature SCR system which utilizes a tempering air system to

control the gas temperature entering the catalyst. It should be noted, however, that the SCR catalyst typically requires time to warm up before it will effectively control NO<sub>x</sub> emissions, so if SCR is selected as BACT, setting an alternative BACT emissions limit for periods of start up, shutdown and malfunction may be warranted.

If you have any questions concerning this comment letter, please call Stan Kukier at 404-562-9046.

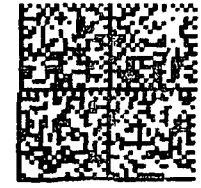
Sincerely,

A handwritten signature in black ink that reads "Gregg M. Worley". The signature is written in a cursive style with a large initial "G" and a long, sweeping underline.

Gregg M. Worley  
Chief  
Air Permits Section

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