Facility Map

In Hard copy file

Golder Associates Inc.

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Golder Associates

April 18, 2001

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BUREAU OF AIR REGULATION

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

Attention: Mr. A. A. Linero, P.E., Administrator, New Source Review

RE: FPL Sanford Plant – 2,200-MW Gas Repowering Project
FDEP File No. 1270009-AC (PSD-FL-270)

Dear Al:

This correspondence is being submitted to update the Department on design enhancements made to the above-referenced project. The combined effect of these enhancements will be to reduce the emissions from the project.

First, the natural gas-fired fuel heaters, initially included with the project and listed in the air construction and Prevention of Significant Deterioration (PSD) permit, will not be constructed. Fuel heating will be accomplished using electric fuel heaters. There are no emissions associated with the electric heaters. As a result, emission unit Nos. 012 through 019, as identified in the air construction and PSD permit, will not exist. The specific conditions of the permit that address the fuel heaters are: Specific Condition III.5., III.10., III.15., III.18., and III.19.

Secondly, the mechanical draft-cooling tower, identified as emission unit No. 020 in the permit, is not being constructed. The cooling tower is listed as an unregulated emission unit. However, two smaller evaporative equipment coolers are being constructed for the project. One evaporative equipment cooler will be constructed for each unit (i.e., one for repowered Unit 4 and one for repowered Unit 5). The total particulate matter (PM) and particulate matter less than 10 microns (PM_{10}) emissions estimated for the cooling tower and included in the air permit application were 24.58 and 12.42 tons per year (TPY), respectively (see Table 2-11 in the air permit application). The maximum PM emissions from the two evaporative equipment coolers are 2.68 pounds per hour (lb/hr) and 11.74 TPY, respectively. The maximum PM_{10} emissions are estimated to be 1.34 lb/hr and 5.87 TPY, respectively. The emission calculations are:

6,686 gallons circulating water/minute/cooler x 2 coolers x 0.00001 gallon drift/gallon circulating water x 8.34 lb/gallon x 60 minutes/hr x 40,000 ppm maximum TDS(PM)/10^6 = 2.68 lb/hr

2.68 lb/hr x 8,760 hr/yr x ton/2,000 lb = 11.74 tons PM/yr

PM_{10} = ½ of PM

The emissions associated with these equipment coolers are a result of the same process as the cooling tower but will be less than one-half that estimated for the cooling tower. The latest site plan (attached) identifies the evaporative equipment coolers as Item 17 on the drawing.

Please call if you have any questions.

Sincerely,

GOLDER ASSOCIATES INC.

Kennard F. Kosky, P.E.
Principal

KFK/nav

Enclosure-Site Plan

cc: Rich Piper, FPL

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Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

May 8, 2000

Mr. Al Linero, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Notification of Construction Start
FPL Sanford Repowering Project

Dear Mr. Linero:

Pursuant to the requirements of 40 CFR 60.7(a)(1), please note that the Sanford Repowering construction project commenced construction on January 1, 2000.

Please note also that startup activities for the first combustion turbine are currently scheduled to commence in the August 2001 timeframe; I will notify you of the planned startup date more definitively as it approaches.

Thank you and your staff for your assistance with permitting this project. I look forward to working with you in the future.

Very truly yours,

Richard Piper
Licensing Manager
Florida Power & Light Company