

21 West Church Street  
Jacksonville, Florida 32202-3139

February 27, 2001

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Mr. Al Linero, P.E.  
Administrator  
New Source Review Section  
Bureau of Air Quality  
Department of Environmental Protection  
111 South Magnolia Dr, Suite 4  
Tallahassee, FL 32301

BUREAU OF AIR REGULATION

RE: Northside Generating Station Combustion Turbines 3, 4, 5, and 6  
Kennedy Generating Station Combustion Turbines 3, 4, and 5  
Construction Permit Nos. 0310045-004-AC and 0310047-004-AC  
Request for Permit Revision *0310045-006-AC*

Dear Mr. Linero:

Last year NOx emissions data was generated during CT operation with and without water injection on Northside CT 3 for the purpose of permitting the installation of foggers at the above referenced facilities.

Using data obtained from CT 3 using temporarily installed fogging equipment, it was shown that NOx emissions decreased on both an hourly and lb/mmBtu basis. The hours of operation were limited to 1000 hours per year per unit in each of the above construction permits in order to avoid PSD for SO2 since fuel input increases during fogger operation.

The NGS data was used to permit the installation of foggers on both the Northside and Kennedy CTs. This data is included in Specific Condition 3 of both of the above referenced construction permits.

The Kennedy CTs are Westinghouse units while the Northside CTs are GE units. Since NOx emission rates vary greatly based on ambient and other conditions, and the only data available for these units are from the one-time test conducted on Unit 3, we are concerned that data obtained during compliance testing upon start-up of the foggers could vary from that obtained last year. Since the testing is needed to show that fogger operation does not increase NOx emissions, and not to meet any particular emission rate, we request that the above construction permits be revised as follows:

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Please change Specific Condition 3 as follows (the Kennedy permit is used as an example, the Northside language is virtually identical):

From:

Inlet foggers may be installed at the compressor inlet to each of the three Westinghouse Model W 501 combustion turbine-electric generators. The three foggers may operate up to 3,000 hours per year in aggregate (average 1000 hours per unit per year). Maximum heat input shall not exceed 634 mmBtu/hr/unit and NOx emissions shall not exceed 300 lb/hr/unit at 90 F and 63 percent RH. This maximum heat input rate will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions shall be provided to the Department of Environmental Protection (DEP) within 45 days of completing the initial compliance testing after the foggers are installed. Thereafter, compliance shall be demonstrated as required in Rule 62-297.310(7). Nitrogen oxides emissions shall be demonstrated by a stack test on one representative turbine. Testing shall be performed each federal fiscal year, no later than September 30<sup>th</sup>. [Rule 62-296.570(4)(a)3, and (4)(b)5., F.A.C.]

To:

Inlet foggers may be installed at the compressor inlet to each of the three Westinghouse Model W 501 combustion turbine-electric generators. The three foggers may operate up to 399 hours per year each. The maximum heat input rate will vary depending upon ambient conditions and the combustion turbine characteristics. Initial stack tests for NOx using EPA Method 7 or 7E shall be performed on one representative turbine with and without the foggers operating to show that no increase in NOx emissions occur as a result of fogger operation.

If you have any questions with regard to this matter, please contact me at (904) 665-6247.

Sincerely,



N. Bert Gianazza, P.E.  
Environmental Permitting

cc: Syed Arif, P.E., FDEP

*C. Kirtz*  
*S. Pace*