



Farzie Shelton, chE; REM

Environmental Affairs Manager of Licensing & Permitting

HAND DELIVERED

January 26, 1999

RECEIVED

JAN 27 1999

BUREAU OF
AIR REGULATION

Mr. C.H. Fancy, P.E.
Chief Bureau of Air Regulation
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road, Mail Station #5505
Tallahassee, Florida 32399-2400

1050004-006-AC AC M 2

Dear Mr. Fancy:

**Re: Air Construction Permit, DEP File No. 1050004-004-AC (PSD-FL-245)
250 Megawatt Combustion Turbine - McIntosh Power Plant Unit No. 5**

As you are aware, Unit No. 5 is the first generation of Westinghouse 501G series Combustion Turbine and due to its large size has not been factory tested prior to its installation on site of McIntosh Power Plant. Hence, more time is needed to tune the unit and in particular the combustors for compliance demonstration with the Best Available Control Technology Standard (BACT). Therefore, we are writing to request a minor modification to the Section III. Emission Unit Specific Condition - Compliance Determination, condition No. 29 of the above referenced permit. We are requesting the Department to consider an additional time (60 more days) for demonstration and compliance with the BACT Standard beyond the 60 days allowed by the permit when the maximum production rate has been achieved, but no later than 180 days of initial operation of the unit.

However, please be advised that we intend and endeavor to demonstrate compliance with the New Source Performance Standard (NSPS) in accordance with the 40CFR60.8 and 40CFR60, Subpart GG (Standards of Performance for Stationary Gas Turbines) as per condition No. 29 of this permit.

We appreciate the Department's consideration to our request and accordingly we are enclosing a check for the sum of \$50.00 to cover the fees associated with this minor modification. If you should have any questions, please do not hesitate to contact me.

Sincerely,

Farzie Shelton

Enclosure

Cc: Mr. Hamilton Oven P.E.
Mr. Al Linero P.E.

City of Lakeland ● Department of Electric

THE BACK OF THIS DOCUMENT CONTAINS AN ARTIFICIAL WATERMARK - HOLD AT AN ANGLE TO VIEW • MICRO PRINTING IN BORDER



City of Lakeland

SunTrust/Mid-Florida, N.A.

63-115
631

NUMBER 360749

DATE 26-JAN-99 CHECK AMOUNT *****50.00

Fifty Dollars And 00 Cents*****

FLORIDA DEP OF ENVIRONMENTAL REGULATION

PAY TO
THE
ORDER
OF

E. Strickland
City Manager

Roger D. H.
Assistant City Manager

Gregory M. Sullivan
AUTHORIZED SIGNATURE

⑈00360749⑈ ⑆063101153⑆6990529042048⑈



Farzie Shelton, chE; REM

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Environmental Affairs Manager of Licensing & Permitting

File

February 22, 1999

RECEIVED

FEB 23 1999

BUREAU OF
AIR REGULATION

Mr. Greg Worley
Chief
Pre-Construction/HAP Section
United States Environmental Protection Agency
Region 4
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303-8909

Re: **Air Construction Permit, DEP File No. 1050004-004-AC (PSD-FL-245)
250 Megawatt Combustion Turbine - McIntosh Power Plant Unit No. 5**

Dear Mr. Worley:

As you are aware, Unit No. 5 is the first generation of Westinghouse 501G series Combustion Turbine and due to its large size has not been factory tested prior to its installation on site of McIntosh Power Plant. Hence, special test program has been developed to validate the unit's design in the field. The overall test program includes mapping and tuning of fuel combustors design, followed by the disassembly of the engine to remove the test instruments and inspection of the engine hardware. Finally the engine is reassembled in preparation of compliance testing and commercial operation.

The test period is planned to cover a period of approximately thirteen weeks from an expected first fire date. The test program planned for this unit is critical for the evaluation of the integrity and long-term operability of the unit. The test program includes various phases beginning with the loading of the combustion turbine to full operating conditions in programmed steps with as few operating hours and starts as possible. Operating the combustion turbine at maximum load and temperatures early in the program is critical due to the limited life of the instrumentation that is used to collect the data. For the proper evaluation of the integrity of the unit, the data must be based on operation of the engine under the most extreme conditions. The primary focus of this testing period is the critical temperature data. However, vibration frequencies, blade clearances, stress and strain, thermal and aerodynamic data are also recorded. The combustion system will be tuned for maximum stability for this testing period. The 501G engine will be instrumented with over 2000 data points for the validation testing effort. This testing program is governed by a strategy to obtain the highest priority or most critical data early in the test plan when the highest percentage of the test instrumentation is full functional. The test period will include extensive validation testing on the engine, its auxiliaries, single and dual fuel combustors, a combustor changeout, an engine outage to disassemble and reassemble the engine, as well as the normal production unit commissioning activities.

City of Lakeland ● Department of Electric


February 22, 1999

Mr. Greg Worley
Chief
Proc. Construction/HAP Section
United States Environmental Protection Agency
Region 4

We are cognizant of the 40 CFR 60.8(a) requirements, demonstration of compliance with the New Source Performance Standards (NSPS) as referenced in specific condition 29 of our permit. However, based on the above test program and due to an extenuating circumstances beyond our control, we are writing to request an extension of time beyond the 60 days allowed after achieving the maximum production rate to demonstrate compliance. In a telephone discussion with Mr. David McNeal he stated that the Agency will consider an extension of time, a 30 day time window from the last reassembly of the unit but no later than 180 days of initial operation of the unit, to perform the NSPS compliance test. Therefore, we are writing to request this extension.

We appreciate the Agency's consideration to our request and wait to hear from you soon. However, if you should have any questions, please do not hesitate to contact me.

Sincerely,



Farzie Shelton

Cc: Mr. C.H. Fancy, P.E.
Chief Bureau of Air Regulation
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road, Mail Station #5505
Tallahassee, Florida 32399-2400

Mr. Hamilton Owen P.E.
Administrator
Siting Coordination Office
Florida Department of Environmental Protection
2600 Blair Stone Rd
MS-48
Tallahassee, FL 32399-2400

cc: J. DeLeon, BARR

City of Lakeland • Department of Electric