

**Florida
Power
CORPORATION**

Date: 4/12/00

To: Al Linero

FAX #: (850) 922-6979

Phone #: ()

From: Scott Osborn

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3

Total number of pages including cover page.

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Comments:

Please call & let me know what direction
to give the plot. Thanks.

Scott



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APR 14 2000

BUREAU OF AIR REGULATION

April 12, 2000

Mr. Al Linero, P.E.
Administrator, New Source Review Section
Florida Department of Environmental Protection
2600 Blair Stone Rd.
Tallahassee, Florida 32399-2400

Dear Mr. Linero:

Re: Florida Power Corporation's Hines Energy Complex
DEP File No. 1050234-002-AC, PSD-FL-195A

This letter serves to follow-up on a conversation that occurred this morning among Messrs. Clair Fancy, Al Linero, Jerry Kissel and Bill Proses of the Department and Mike Kennedy and me of Florida Power Corporation (FPC). Specifically, during the recently completed outage at FPC's Hines Energy Complex, certain equipment changes were made to the two combustion turbines (CT 1A and 1B). A dialogue has now been initiated between FPC and the Department to determine whether permitting action is necessary as a result of these equipment changes.

Hines Power Block 1, consisting of CTs 1A and 1B, has been in operation since approximately January of 1999. Initial compliance testing was completed on April 12, 1999. In the interim since the initial emissions compliance testing was conducted, there has been additional permitting action beyond the initial PSD air construction permit. On May 27, 1999, FPC received a permit modification that allowed the facility to fully utilize its originally installed maximum heat input capacity. Additionally, testing had shown that the allotted startup time of two hours was inadequate for warm and cold starts and these times were increased as requested. On December 1, 1999, FPC received the *Initial Draft Title V* air operating permit for the Hines facility. Revisions have been made and a *Proposed Title V* permit will be issued shortly. Specifically, the Hines facility is still operating under an air construction permit and, arguably, an actual operating history has not yet been established.

Although compliance with environmental limits was demonstrated, testing to demonstrate attainment of contractual performance guarantees (i.e., power output, heat rate, etc.) was unsuccessful. Siemens Westinghouse Power Corporation (SWPC) has expended considerable effort since startup in the evaluation and testing of the power block (including the steam cycle) in an attempt to attain the original contractual performance goals. In this context, communications between SWPC, FPC's Construction Department and Hines plant staff led to

Mr. Linero
April 12, 2000
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the work that was conducted during the recent outage that commenced on March 24th and ended on April 8th. SWPC had verbally conveyed to FPC that the equipment changes would not result in an emissions increase. Subsequently, correspondence was received from SWPC, dated March 31, 2000, indicating that ... "there should be no noticeable change in emissions on a *ppm basis* (emphasis added). That is, the emissions produced per unit of fuel burned should be the same before and after the Row 1 compressor upgrade." Further, "...the Row 1 upgrade increases GT airflow (with IGVs full open) and GT fuel input by about 2%, therefore, when the GT is base loaded, there will be an increase in emissions on a lb/hr basis of about 2%."

FPC's Environmental Services Department (ESD) became aware of the letter and the outage work completed and notified the Department today by phone. As agreed, the units have not yet been re-started for full load testing since the work was completed. With the Department's concurrence, FPC could begin the testing to determine if the work has resulted in the hoped for performance improvements and whether any corresponding increase in fuel flow has resulted. If not, there would be no expectation of an emissions increase and a permit amendment may not be required. If, however, there is a measureable increase in fuel flow (i.e., comparing actual measured heat input both before and after the upgrade), then FPC would have the necessary data to include in an application for a permit to construct. It should be noted that at the anticipated maximum fuel flow increase of two percent, no current permit limits would be exceeded and no PSD emission increase thresholds would be triggered. In addition, regarding NOx, there would be no increase in actual emissions, as the facility's SCR system has the ability to control to previous actual NOx levels.

In summary, FPC requests permission from the Department to conduct the one-time test necessary to determine whether the work recently conducted has resulted in a fuel flow increase. If so, FPC would agree to operate the CTs at a capacity no greater than the maximum actual capacity that was achievable prior to the recent outage. FPC would then operate at this restricted rate until successfully applying for and obtaining a construction permit.

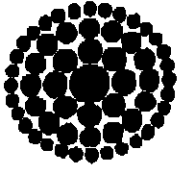
If you should have any questions or require clarification concerning the above, please do not hesitate to contact either Mike Kennedy at (727) 826-4334 or me at (727) 826-4258.

Sincerely,



Scott H. Osbourn
Senior Environmental Engineer

cc: William Thomas, DEP SW District



Florida Power Corporation

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APR 11 2000

BUREAU OF AIR REGULATION

Date: 4/11/00

To: Al Linero

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PK SHO
CLN DGD

FILE 7.4.1

SIEMENS
Westinghouse

March 31, 2000

HEC1 WFPC521-00

WBS: 311

Mr. David Sands
Engineering Manager
Florida Power Corporation
7700 County Road #555
Bartow, FL 33830

Subject: Hines Energy Complex, PB1 Emissions

Dear Mr. Sands:

In reference to your question on emissions impact with the new compressor upgrade:

There should be no noticeable change in emissions on a ppm basis. That is, the emissions produced per unit of fuel burned should be the same before and after the Row 1 compressor upgrade. (All actual emissions amounts referenced in the contract Exhibit B-18 with the ppmvd designation will not change.)

The Row 1 upgrade increases GT airflow (with IGV's full open) and GT fuel input by about 2%, therefore when the GT is base loaded, there will be an increase in the emissions on a lb/hr basis of about 2%. (All actual emissions amounts referenced in the contract Exhibit B-18 with the lb/h designation will increase by about 2%.) Since the measured lb/hr emissions were much lower than guarantee, this should not be an issue. At reduced load with the IGV's in partially closed position, the difference will be less than 2%.

Please call if you have any questions on this matter.

Sincerely

Steve Kusca for

Thomas Barrett
Project Director

TB:pn

Siemens Westinghouse Power Corporation
A Siemens Company

4400 Alafaya Trail
Orlando, FL 32828-2399

WFPC521-letter dated 3-30-00 Emissions