

**Florida
Power**
CORPORATION

July 7, 1995

RECEIVED

JUL 14 1995

Bureau of
Air Regulation

Ms. Teresa Heron
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Ms. Heron:

Re: Construction Permit Amendment Request - Additional Information
DEP Permit Number AC49-203114 ; PSD-FL-180

This is in response to Mr. Al Linero's request for additional information regarding the application referenced above. The request was for information on the estimated amount of natural gas that will be available to the Intercession City plant.

Florida Power Corporation (FPC) received from Florida Gas Transmission (FGT) data showing the amount of gas potentially available on a short-term basis by time of year. FGT, however, cannot estimate the annual amount of natural gas that may be available. Since the supply will be interruptible, FGT has indicated to FPC that as little as no gas may be available. The estimated potential amounts available on a short-term basis are as follows:


- 1) During the period of May through September, which includes the summer peak demand period, from 1,800 to 2,200 MMBtu/hour of natural gas is potentially available on a short-term basis. This is enough gas to operate two of the GE Frame 7EA units (Units P7 through P10) at base load.
- 2) During the period of October through April, up to 4,000 to 5,000 MMBtu/hour of natural gas is potentially available on a short-term basis. This is enough gas to operate up to four of the GE Frame 7EA units at base load.

Based on FGT's representations, FPC expects to use oil as the primary fuel but will take advantage of natural gas availability when it occurs. The Intercession City units are run mainly during peak load demand periods, which often coincide with peak natural gas demand periods. This and the interruptible nature of the gas supply make it very difficult to estimate total annual gas consumption. One certainty is that the units will pollute less when running on natural gas, resulting in a benefit to the environment.

Ms. Teresa Heron
July 7, 1995
Page Two

Please contact me at (813) 866-4344 if you have any questions or if you need additional information.

Sincerely,



J. Michael Kennedy
Manager, Air Programs

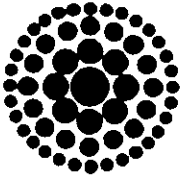
cc: C. Collins

Teresa

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Jawell H. - EPA

John B. - NPS



**Florida
Power**
CORPORATION

May 31, 1995

RECEIVED

JUN 2 1995

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

Bureau of
Air Regulation

Dear Mr. Linero:

Re: Intercession City - DEP Permit No. AC49-203114 & PSD-FL-180
Request to Burn Natural Gas in Units P7 through P11

Florida Power Corporation (FPC) has received your May 19, 1995 letter requesting additional information regarding the submittal referenced above. Each request item is discussed in detail below.

1. Emission Test Results

The emission test results from the past two years for Units P7 through P10 are enclosed. These include the initial compliance tests for these units, performed in late 1993 and early 1994, and the first annual compliance test performed in January 1995. Unit P11, the construction for which is nearing completion, has not yet been tested.

Please note that the initial tests were performed using a NO_x limit of 42 ppm corrected to 15% O₂ at ISO conditions. The 1995 tests were performed against a NO_x limit of 42 ppm corrected to 15% O₂ only, in accordance with the permit amendment issued to FPC on September 21, 1994.

2. Feasibility of Installing Dry Low-NO_x Combustors

Before discussing the feasibility of installing dry low-NO_x technology on these units, it is FPC's position that it is inappropriate to consider the retrofit of BACT technology for a non-PSD permit review. Construction on Units P7 through P10 was completed in late 1993 and they have been in operation since that time. Unit P11 is nearing completion. FPC is proposing to use natural gas as a supplemental fuel to No. 2 fuel oil and is proposing to decrease pollutant emissions while burning natural gas. Since emissions will not increase above those permitted for burning oil, the project is not subject to PSD review and the accompanying BACT determination.

In addition, it is FPC's understanding that the BACT determinations resulting in the application of dry low-NO_x technology were for combined-cycle units firing primarily natural gas with oil as a

Mr. Al Linero
May 31, 1995
Page Two

back-up fuel. The Intercession City units are simple-cycle peaking units that will remain primarily oil-fired with natural gas used as an interruptible supplemental fuel that is in limited supply.

FPC has received an estimate of the cost to install dry low-NOx control technology on Units P7 through P10 from General Electric, which is the manufacturer. Retrofitting this technology on these units would require a substantial rebuilding of the units, including the combustors and the computer control system. The cost would be approximately \$5 million per unit for a total of \$20 million for the four units. Since natural gas will be available in a limited, interruptible supply, such an expense would cause FPC to withdraw the request and abandon the use of natural gas at the Intercession City facility.

Siemens, which is the manufacturer of Unit P11, does not yet have a dry low-NOx capability for the V84.3 turbine. A NOx concentration of 25 ppm is the lowest level that this unit can achieve while burning natural gas.

FPC hopes that the information given satisfactorily addresses your questions. FPC wishes to use the limited amount of natural gas which has become available to it. The already-installed water injection control technology will limit NOx emissions to 25 ppm, reducing emissions when compared with those from burning fuel oil, and resulting in a benefit to the environment.

Please feel free to contact me at (813) 866-4344 if you have any questions.

Sincerely,



J. Michael Kennedy
Manager, Air Programs

Enclosures

cc: Mr. Charles Collins, DEP Central District
Mr. Ken Kosky, P.E., KBN Engineering



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

May 19, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Michael Kennedy
Manager, Air Programs
Florida Power Corporation
Post Office Box 14042
St. Petersburg, Florida 33733

Dear Mr. Kennedy:

RE: Intercession City - DEP Permit No. AC49-203114 & PSD-FL-180
Request to Burn Natural Gas as a Supplementary Fuel

The Department is in receipt of your April 28, 1995, letter requesting a permit modification to burn natural gas as a supplemental fuel in combustion turbines P7 through P11. Before we can process your request, please submit the following:

1. All NOx emission test results for each unit for the past two (2) years of operation.
2. A discussion of the feasibility of installing dry low NOx combustors to achieve a NOx emissions level less than 25 ppm at a future date (e.g. 15 ppm by 1998/1999). The analysis should include an estimate of cost per ton NOx removed. It should include credits such as savings on steam, revenues from additional operating hours, etc. For reference, BACT determinations for units permitted at the same time as the Intercession project and, which anticipated gas availability, were 42 ppm (oil) and 15 ppm (gas-by 1997/1998).

If you have any questions, please call Ms. Teresa Heron at (904) 488-1344.

Sincerely,

A. A. Linero, P.E.
Administrator
New Source Review Section

AL/th/t

cc: Charles Collins, Central District
Ken Kosky, KBN

Is your RETURN ADDRESS completed on the reverse side?

SENDER: <ul style="list-style-type: none"> • Complete items 1 and/or 2 for additional services. • Complete items 3, and 4a & b. • Print your name and address on the reverse of this form so that we can return this card to you. • Attach this form to the front of the mailpiece, or on the back if space does not permit. • Write "Return Receipt Requested" on the mailpiece below the article number. • The Return Receipt will show to whom the article was delivered and the date delivered. 		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
3. Article Addressed to: Michael Kennedy Mgr. Air Program Fla. Power Corp. PO Box 14042 St. Pete, FL 33733		4a. Article Number Z 311 902 893	
5. Signature (Addressee) [Signature]		4b. Service Type <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise	
6. Signature (Agent) [Signature]		7. Date of Mailing MAY 24 1995	
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PS Form 3811, December 1991 *U.S. GPO: 1993-352-714 **DOMESTIC RETURN RECEIPT**

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AC49-20314			
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