



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

February 14, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Jeffrey Pardue, C.E.P.
Director, Environmental Service Dept.
Florida Power Corp.
3201 34th Street South
St. Petersburg, Florida 33711

Re: DRAFT Air Construction Permit Modification: PSD-FL-167^I(B), AC64-191015^I(B)
DeBary Facility/Peaking Units P7-P10 - Addition of Natural Gas Capability

Dear Mr. Pardue:

Enclosed is one copy of the Draft Air Construction Permit Modification for Combustion Turbines (Peaking Units) P7-P10 located at the DeBary Facility, West Highbanks Road, DeBary, Volusia County. The Department's Intent to Issue Air Construction Permit Modification and the "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION" must be published within 30 (thirty) days of receipt of this letter. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit modification.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please contact Mr. Linero at 904/488-1344.

Sincerely,

C. H. Fancy, P.E., Chief,
Bureau of Air Regulation

CHF/aal/hh

Enclosures

P 265 659 171

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail (See reverse)

Sent to	
Jeffrey Pardue	
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Postage	\$
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Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
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P30-FL-167B 2-17-97	
Peaking Write P7-PI0	

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- 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.
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I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Jeffrey Pardue, Director
Fla. Power Corp.
3201 34th St. South
St. Petersburg, FL
33711

4a. Article Number

P 265 659 171

4b. Service Type

- Registered Certified
- Express Mail Insured
- Return Receipt for Merchandise COD

7. Date of Delivery

2/20/97

5. Received By: (Print Name)

Kathy DeLong

6. Signature: (Addressee or Agent)

X Kathy DeLong

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

In the Matter of an
Application for Permit Modification by:

Mr. W. Jeffrey Pardue, C.E.P., Director
Environmental Services Department
Florida Power Corporation
3201 34th Street South
St. Petersburg, Florida 33711 /

DRAFT Permit Nos. AC64-191015(B), PSD-FL-167(B)
File No. 1270028-002-AC
DeBary Facility/Volusia County

INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification (copy of DRAFT permit modification attached) for the proposed project, as detailed in the application specified above, for the reasons stated below.

The applicant, Florida Power Corporation (FPC) applied on November 8, 1996, to the Department for an air construction permit modification for Combustion Turbines (Peaking Units) P7, P8, P9, and P10 at its DeBary Facility located on West Highbanks Road, DeBary, Volusia County. The request is for a modification to Permits AC64-191015 and PSD-FL-167 to allow installation of natural gas firing capability for the mentioned units.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit modification, including re-issuance of the expired permit, is required to commence the additional construction at the described facility.

The Department intends to issue this air construction permit modification based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed "**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION**". The notice shall be published one time only within 30 (thirty) days in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 904/488-1344; Fax 904/ 922-6979) within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit modification pursuant to Rule 62-103.150 (6), F.A.C.

The Department will issue the FINAL Permit Modification, in accordance with the conditions of the enclosed DRAFT Permit Modification unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed DRAFT Permit Modification issuance action for a period of 30 (thirty) days from the date of publication of "**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION**." Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit Modification, the Department shall issue a Revised DRAFT Permit Modification and require, if applicable, another Public Notice.

The Department will issue the permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., or a party requests mediation as an alternative remedy under Section 120.573 F.S. before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing are set forth below, followed by the procedures for requesting mediation.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, telephone: 904/488-9730, fax: 904/487-4938. Petitions must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition (or a request for mediation, as discussed below) within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A person whose substantial interests are affected by the Department's proposed permitting decision, may elect to pursue mediation by asking all parties to the proceeding to agree to such mediation and by filing with the Department a request for mediation and the written agreement of all such parties to mediate the dispute. The request and agreement must be filed in (received by) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

A request for mediation must contain the following information: (a) The name, address, and telephone number of the person requesting mediation and that person's representative, if any; (b) A statement of the preliminary agency action; (c) A statement of the relief sought; and (d) Either an explanation of how the requester's substantial interests will be affected by the action or proposed action addressed in this notice of intent or a statement clearly identifying the petition for hearing that the requester has already filed, and incorporating it by reference.

The agreement to mediate must include the following: (a) The names, addresses, and telephone numbers of any persons who may attend the mediation; (b) The name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time; (c) The agreed allocation of the costs

and fees associated with the mediation; (d) The agreement of the parties on the confidentiality of discussions and documents introduced during mediation; (e) The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen; (f) The name of each party's representative who shall have authority to settle or recommend settlement; and (g) The signatures of all parties or their authorized representatives.

As provided in Section 120.573 F.S., the timely agreement of all parties to mediate will toll the time limitations imposed by Sections 120.569 and 120.57 F.S. for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under Sections 120.569 and 120.57 F.S. remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.



C. H. Fancy, P.E., Chief
Bureau of Air Regulation

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DRAFT Permit Modification No.: AC64-191015(B), PSD-FL-167(B)
File No. 1270028-002
DeBary Facility/Volusia County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Florida Power Corporation (FPC), for Combustion Turbines (Peaking Units) P7, P8, P9, and P10 at its DeBary Facility located at West Highbanks Road, Volusia County. A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The applicant's name and address are: Florida Power Corporation, 3201 34th Street South, St. Petersburg, FL 33711.

The modification is to reissue the expired construction permit for six 92.9 megawatt, oil-fired simple cycle combustion turbines; revise the number of units to the four already constructed; and allow installation of natural gas firing capability.

The four peaking units were each permitted to operate up to 3,390 hours per year. Since their startup in late 1992, usage has been less than 800 hours each. In the near future, increased service to 900-1700 hours of operation per year is expected. FPC plans to burn available natural gas, an inherently clean fuel which is available to FPC on an interruptible basis, in lieu of some fuel oil to meet the anticipated demand.

Because of the great variability of usage from year-to-year inherent in peaking units and the relatively short period of operation for the four units, the Department does not believe that representative past actual emissions have yet been established. Also, hourly emissions will be very substantially reduced when natural gas is fired in lieu of fuel. Per Rule 62-210.200(1)(b), F.A.C. the Department may presume that unit-specific allowable emissions for an emissions unit are equivalent to the actual emissions of the emissions unit. Therefore, there will be no significant increase in PSD pollutants and the project is exempt from PSD and BACT. Burning natural gas will minimize emissions of particulate matter, sulfur dioxide, and nitrogen oxides (NOx). NOx will be further controlled to 25 parts per million by the installed water injection equipment.

The Department will issue the FINAL Permit Modification, in accordance with the conditions of the DRAFT Permit Modification unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed DRAFT Permit Modification issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit Modification, the Department shall issue a Revised DRAFT Permit Modification and require, if applicable, another Public Notice.

The Department will issue FINAL Permit Modification with the conditions of the DRAFT Permit Modification unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S. or a party requests mediation as an alternative remedy under Section 120.573 before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing are set forth below, followed by the procedures for requesting mediation.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, telephone: 904/488-9370, fax: 904/487-4938. Petitions must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition (or a request for mediation, as discussed below) within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the Department's action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

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As provided in Section 120.573 F.S., the timely agreement of all parties to mediate will toll the time limitations imposed by Sections 120.569 and 120.57 F.S. for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under Sections 120.569 and 120.57 F.S. remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida, 32301
Telephone: 904/488-1344
Fax: 904/922-6979

Department of Environmental Protection
Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, FL 32803-3767
Telephone: 407/893-3333
Fax: 407/897-5963

The complete project file includes the Draft Permit Modification, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 904/488-1344, for additional information.

**DIVISION OF AIR RESOURCES MANAGEMENT
BUREAU OF AIR REGULATION
NEW SOURCE REVIEW SECTION
Telephone (904) 488-1344
Fax (904) 922-6979**

**TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION**

DeBary Facility/Peaking Units P7-P10

Florida Power Corporation

Facility ID No. 1270028

DeBary

Volusia, County

Air Construction Permit Modification No. AC64-191015(B)

PSD-FL-167(B)

File No. 1270028-002-AC

February 14, 1997

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1. Applicant

Florida Power Corporation
3201 34th Street South
St. Petersburg, Florida 33711

2. Source Name and Location

DeBary Power Plant
Units P7, P8, P9, P10
DeBary, Florida

3. Source Description

The Florida Power Corporation (FPC) DeBary Power Plant consists of six combustion turbines peaking units that are fired by No. 2 or No. 6 fuel oil and four combustion turbines that are fired by No. 2 fuel oil.

The latter four combustion turbines (P7, P8, P9, P10) are each 96 megawatt simple cycle units manufactured by General Electric (Model PG7111EA). The units are fired with No. 2 fuel oil containing 0.3 percent (%) or less sulfur. Annual hours of operation are limited to 3,390 or less based on a sliding scale related to the fuel sulfur content. Control measures and equipment consists of firing relatively clean fuel, good combustion practices, and water injection.

Since their startup in late 1992, these units have each been utilized less than 800 hours per year. This characteristic of relatively low levels of operation is typical of peaking units. Among the reasons are the inherent thermal inefficiency that results in the turbine use being primarily limited to extreme meteorological conditions, and unavailability of baseload plants. Although the use is usually low, these units can, during extreme years, be called upon to provide service at much higher rates within their permitted limits.

FPC projects substantially increased use during 1997 to approximately 850 to 1200 hours per unit while fired exclusively with fuel oil. This is largely due to unavailability of the baseloaded Crystal River Unit 3.

4. Current Permit and Major Regulatory Program Status

Construction of P7-P10 was authorized by the Department's Prevention of Significant Deterioration (PSD), Permit No. PSD-FL-167 and Air Construction Permit AC64-191015 issued in October 1991. Two other identical units were also authorized but were never constructed. The four units are operated under Air Operation Permit AO64-233544 issued in October, 1993.

The initial construction of P7-P10 was authorized pursuant to the Department's Preconstruction Review PSD and Permitting requirements in Rules 62-210 and 62-212, F.A.C. The units were also reviewed in accordance with the New Source Performance Standard (NSPS) Subpart GG - Standards of Performance for Stationary Gas Turbines, adopted by reference as Rule 62-204.800(7)37.

As a major source, any modification of P7-P10 resulting in emissions increases must be evaluated for significance per Table 62-212.400-2, F.A.C. to determine if further PSD review is required along with a Best Available Control Technology (BACT) Determination.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

5. Permit Modification Request

On November 8, 1996 the Department received a request from FPC for modification of its permits to install natural gas firing capability for units P7-P10. Limited quantities of gas will be available to FPC on an "interruptible basis." No increase in hours of operation was requested and FPC proposed to reduce allowable nitrogen oxides (NO_x) emissions from 42 parts per million (ppm) permitted while firing fuel oil to 25 ppm when firing gas.

Following an initial review of the submitted material, the Department requested additional information in a letter to FPC dated December 2, 1996. A response was received by the Department on January 9, 1997. Additional details were received by the Department on January 28.

6. Potentially Applicable Major Rules

Major rules that could potentially apply to this permit modification request include the following:

- Rule 62-212.400, F.A.C. - Prevention of Significant Deterioration of Air Quality
- 40 CFR 60 - Standards of Performance for New Stationary Sources, Subpart GG - Standards for Stationary Gas Turbines (adopted by reference in Chapter 62-204, F.A.C.) and
- Chapter 62-297, F.A.C., related to emissions monitoring at stationary sources.

The primary regulatory issue pertinent to FPC's permit modification is that of PSD permitting applicability. Modifications which result in a *significant net emission rate increase* are classified as major modifications and therefore subject to PSD review. The procedures for determining whether a significant net emission rate increase will occur were changed for steam units only by EPA in July 1992 as a result of the Wisconsin Electric Power Company (WEPCO) litigation.

In the absence of applicability of the WEPCO decision (as reflected in revisions of Rule 62-210 and 62-212, F.A.C.), the calculation of a net emission increase for sources other than steam units is based on comparing actual annual emissions for the two year period prior to the change (before case) with potential emissions following the change (after case). Another two year period (within a five year period prior to the change) can be used if it is demonstrated to be more representative of normal source operation. Potential emissions are calculated assuming operation at rated capacity for the number of hours allowed by the enforceable permit conditions. This procedure is referred to as the *actual-to-potential* method.

Operation on gas and fuel oil will result in approximately 500 hours extra hours of usage in 1997 (to 1400-1700 hours) compared to operation on fuel oil alone for each peaking unit at DeBary and a decrease at some peaking units elsewhere in the FPC system. This will also result in PSD-significant emissions increases under the *actual-to-potential* test. However while operating on gas, these units will emit considerably less emissions than while firing fuel oil. Following is an estimate of emissions for the four units at full capacity for gas compared with oil:

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

COMPARISON OF EMISSIONS FROM FUEL OIL AND GAS AT DEBARY

Pollutant	No. 2 Fuel Oil		Natural Gas	
	lb/hr	tons/yr	lb/hr	tons/yr
NO _x	182	1,234	107	726
PM/PM ₁₀	17	116	7.5	51
CO	54	365	21	144
VOC's	5	34	3	20
SO ₂	555	1925	3	20
SAM	69	469	0.4	3

The decreases in hourly emissions while operating under gas are dramatic. However because of the fact that the units can still fire fuel oil, their potential to emit will remain unchanged even though true actual emissions may well be reduced based on a WEPCO-type evaluation.

7. Evaluation of PSD Applicability

The main issue regarding FPC's permit modification is that of PSD review applicability. The Department's detailed assessment of this regulatory issue follows.

A brief description of the PSD review procedures was provided above. As mentioned, EPA and the Department have not revised their rules to implement the WEPCO PSD review procedures for sources other than steam units. The Department's definitions of "actual" and "potential" emissions (per Chapter 62-210 (12) and (225), F.A.C.) for units other than steam units follow:

(12) "Actual Emissions" - The actual rate of emission of a pollutant from an emissions unit as determined in accordance with the following provisions:

(12)(a) In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during a two year period which precedes the particular date and which is representative of the normal operation of the emissions unit.

The Department may allow the use of a different time period upon a determination that it is more representative of the normal operation of the emissions unit. Actual emissions shall be calculated using the emissions unit's actual operating hours, production rates and types of materials processed, stored, or combusted during the selected time period.

(12)(b) The Department may presume that unit-specific allowable emissions for an emissions unit are equivalent to the actual emissions of the emissions unit provided that, for any regulated air pollutant, such unit-specific allowable emissions limits are federally enforceable.

(12)(c) For any emissions unit (other than an electric utility steam generating unit specified in subparagraph (d) of this definition) which has not begun normal operations on a particular date, actual emissions shall equal the potential emissions of the emissions unit on that date.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

(225) "Potential Emissions" or "Potential to Emit" - The maximum capacity of an emission unit or facility to emit a pollutant under its physical and operational design. Any enforceable physical or operational limitation on the capacity of the emission unit or facility to emit a pollutant, including any air pollution control equipment and any restrictions on hours of operation or on the type or amount of material combusted, stored, or processed shall be treated as part of its design provided that, for any regulated air pollutant, such physical or operational limitation is federally enforceable.

Because of the great variability of usage from year-to-year inherent in peaking units and the relatively short period of operation for the four units, the Department does not believe that representative past actual emissions have yet been established. This is further validated by the very substantial increase in hours of operation expected in 1997 even without addition of natural gas capability. Therefore in accordance with Rule 62-210(12)(b), the Department will presume that allowable emissions would better reflect the "before" case for comparison with the "after" case following the proposed change.

Based on the above analysis, the Department concludes that the addition of gas firing capability, as described in FPC's permit application, will not result in a significant net increase in any PSD regulated pollutant and therefore the permit modification regarding the use of gas Units P7-P10 is not subject to PSD review.

Even if PSD were applied, natural gas combustion would suffice as BACT for most pollutants. In the case of NO_x, the proposed limit of 25 ppm would likely meet BACT requirements. Any additional NO_x control measures for a peaking unit firing natural gas, on an interruptible basis, would probably not prove to be cost-effective.

There is at least one precedent for exempting addition of gas capability for oil fired combustion turbines. The specific case is described in an EPA letter dated June 24, 1981 (attached). Although the Department does not necessarily agree with the rationale given in the analysis by EPA, it appears that the situation and the decision were similar to those in the present review.

8. Proposed Addition of New Conditions of Approval to Permit PSD-FL-167

The proposed new conditions applicable to gas firing in Units P7-P10 are shown in the draft re-issued and modified permit. The changes to be incorporated include:

- Limiting NO_x emissions to 25 ppm (corrected) while firing natural gas
- Revising the number of units from six to four
- Revising emission limits downward to reflect less units
- Incorporation of previous permit modifications

9. Conclusions

The changes in operation authorized by these permit amendments will not cause net significant increase in potential emissions of any PSD regulated air pollutant. The Department expects the change to result in lower actual emissions of all pollutants although great variability will continue to characterize annual emissions from year-to-year. The changes will not cause or contribute to a violation of any ambient air quality standard or PSD increment.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

4.17

JUN 24 1981

OFFICE OF ENFORCEMENT

Mr. Amasjit S. Gill
General Electric - Gas Turbine Division
One River Road
Schenectady, New York 12345

Dear Mr. Gill:

This is to respond to your letter of May 19, 1981, requesting a determination of the applicability of NSPS and PSD to stationary gas turbines converting from middle distillates to natural gas.

The information presented in your letter indicated that NO_x and SO_2 emissions will decrease after the conversion to natural gas and hydrocarbons, CO and particulate emissions will either remain the same or decrease. As you correctly pointed out in your letter, the NSPS would only apply if there is an increase in emissions of a pollutant to which the standard applies. The NSPS for gas turbines applies only to NO_x and SO_2 emissions. Since the conversion from middle distillate fuel to natural gas for the turbines in question will cause a decrease in NO_x and SO_2 emissions, it is not considered a modification as defined in 40 CFR 60.14(a). The turbines however, could be subject to the NSPS if the conversion falls under the definition of reconstruction (See 40 CFR 60.15).

PSD review would apply to a proposed modification at an existing major stationary source if it would cause a significant net increase in actual emissions of any regulated pollutant. In the case of the gas turbine conversions outlined in your letter, PSD applicability is determined by evaluating any change in emissions rates caused by the conversions. The data contained in your letter indicate that the emission rates after the conversion will either remain constant or decrease. Actual emissions could increase only if there is an increase in the production rate or hours of operation, both of which are specifically exempt from PSD review. (See 40 CFR 52.21(b)(2)(iii)(f)). Therefore, since there will not be any increase in emission rates or any creditable increases in actual emissions, the conversion of the gas turbines will not be subject to PSD review.

If you have any questions concerning this determination
please contact Janet Farella of my staff at 202-755-2564.

Sincerely yours,

A handwritten signature in black ink, appearing to read "E. E. Reich". The signature is fluid and cursive, with the first name "E. E." being more prominent than the last name "Reich".

Edward E. Reich, Director
Division of Stationary
Source Enforcement

cc: Peter Wyckoff
Mike Trutna

DRAFT

PERMITTEE:

Florida Power Corporation
3201 34th Street South
St. Petersburg, Florida 33711

Permit No.	AC64-191015(B)
PSD No.	PSD-FL-167(B)
File No.	1270028-002-AC
Expires:	December 31, 1997
Facility	DeBary

Authorized Representative:
Mr. W. Jeffrey Pardue, C.E.P.
Director, Environmental Services Department

LOCATED AT:

UTM: Zone 17, 467.5 km East and 3197.2 km North

Directions: *West Highbanks Road, DeBary, Volusia County*

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297. The above named permittee is authorized to construct or modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department) and made a part hereof and specifically described as follows:

For four 92.9 MW simple cycle combustion turbines (CT's - P7, P8, P9, and P10) with maximum heat input of 1,144 (oil) and 1,159 (gas) MMBtu/hr/unit at 20°F to be located at the DeBary Facility in DeBary, Volusia County. The turbines are GE PG7111EA equipped with wet injection capability. The source shall be constructed in accordance with the permit application, plans, documents, amendments, and drawings, except as otherwise noted in the General and Specific Conditions.

Attached appendices made a part of this permit:

Appendix GC
Appendix SC

Construction Permit General Conditions
Specific Conditions

EFFECTIVE DATE:

Howard L. Rhodes, Director
Division of Air Resources
Management

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- (a) Have access to and copy and records that must be kept under the conditions of the permit;
 - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- (a) A description of and cause of non-compliance; and
 - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- (a) Determination of Best Available Control Technology (X)
 - (b) Determination of Prevention of Significant Deterioration (X); and
 - (c) Compliance with New Source Performance Standards (X).
- G.14 The permittee shall comply with the following:
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - (c) Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements;
 - 2. The person responsible for performing the sampling or measurements;
 - 3. The dates analyses were performed;
 - 4. The person responsible for performing the analyses;
 - 5. The analytical techniques or methods used; and
 - 6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

APPENDIX SC
SPECIFIC CONDITIONS

1. This permit supersedes permit AC64-191015 (PSD-FL-167), dated October 18, 1991, and its revisions dated:

June 30, 1993 - Change Method 3 to Method 3A

August 11, 1993 - Replace trace element limits with use of low sulfur oil

August 30, 1993 - Correct PM basis and SAM limit

September 21, 1994 - Incorporate heat input curves

The provisions of the air construction permit AC64-191015 (PSD-FL-167), dated October 18, 1991 and the revisions to that permit, attached and listed above, are incorporated into this air construction permit except for the changes that follow in Specific Conditions 2. through 6, below.

2. Table 1 from Previous Specific Condition 1 is changed per the previous modifications listed above and the present modification to read as shown in revised Table 1, attached.
3. Previous Specific Condition 3 is changed as follows:

FROM

These sources are allowed to use only No. 2 fuel oil with a 0.30% average and 0.5% sulfur content maximum, by weight. The sulfur content is based upon a weighted 12 month rolling average of fuel oil analysis from delivery receipts.

TO:

These units are allowed to use No. 2 fuel oil with a 0.30% average and 0.5% maximum sulfur content, by weight, as well as natural gas. The sulfur content is based upon a weighted 12-month rolling average of fuel oil analysis from delivery receipts.

4. Previous Specific Condition 4 is changed as follows:

FROM

The permitted materials and utilization rates for the combined cycle gas turbines shall not exceed: (a) the maximum heat input of 1,144 MMBtu/hr/unit at 20° F. (b) maximum No. 2 fuel oil consumption shall not exceed 7,826 (at 59° F) gal/hr/unit or 159,200,000 gal/yr for 6 CT's. (c) SO₂ emissions for the six combustion turbines not exceed 2,888 tons/year. (d) the maximum capacity factor shall be limited to 38.7%.

APPENDIX SC
SPECIFIC CONDITIONS

DRAFT

TO

The permitted materials and utilization rates for the combined cycle gas turbines shall not exceed: (a) the maximum heat input of 1,144 (oil) and 1,159 (gas) MMBtu/hr/unit at 20° F. (b) maximum No. 2 fuel oil consumption shall not exceed 106,133,333 gal/yr for 4 CT's. (c) SO₂ emissions for the four combustion turbines not exceed 1925 tons/year. (d) the maximum capacity factor shall be limited to 38.7% (equivalent to 3,390 hours per year).

5. The first paragraph of Previous Specific Condition 8 is changed as follows:

FROM

Compliance with the NO_x, SO₂, CO, PM, PM₁₀ and VOC standards shall be determined (on each unit within 10% maximum heat rate input) within 180 days of initial operation and annually thereafter, by the following reference methods as described in 40CFR60, Appendix A (July, 1990 version) and adopted by reference in F.A.C. Rule 17-2.700.

TO

Testing of emissions of NO_x, SO₂, CO, PM, PM₁₀ and VOC shall be conducted with the source operating at capacity. Capacity is defined as 95-100 percent of the manufacturer's rated heat input achievable for the average ambient (or conditioned) air temperature during the test. If it is impracticable to test at capacity, then sources may be tested at less than capacity. In such cases, the entire heat input vs. inlet temperature curve will be adjusted by the increment equal to the difference between the design heat input value and 105 percent of the value reached during the test. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report.

6. Previous Specific Condition 14 is changed as follows:

FROM

Test results will be the average of 3 valid runs. The Central District office will be notified at least 15 days in writing in advance of the compliance test(s). The sources shall operate between 90% and 100% of permitted capacity during the compliance test(s) as adjusted for ambient temperature. Compliance test results shall be submitted to the Central District office no later than 45 days after completion.

TO

Test results will be the average of 3 valid runs. The Central District office shall be notified at least 15 days in writing in advance of the compliance test(s). Compliance test results shall be submitted to the Central District office no later than 45 days after completion.

APPENDIX SC SPECIFIC CONDITIONS

TABLE 1 (Revised)
ALLOWABLE EMISSION LIMITS
Simple Cycle Combustion Turbine

Pollutant	Standard Oil Firing	Each Unit lb/hr ^(a)	Total 4 Units	Basis
NO _x	42 ppm at 15% oxygen dry basis	182	1,234 ^(b)	BACT
NO _x	25 ppm at 15% oxygen dry basis (gas firing)	107	726 ^(b)	FPC
SO ₂	No. 2 fuel oil with 0.3% avg. and 0.5% max. sulfur	555	1,925 ^(c)	BACT
PM/PM ₁₀	0.015 lb/MMBtu	15	102 ^(b)	BACT
VOC	-	5	34 ^(b)	BACT
CO	-	54	365 ^(b)	BACT
Sulfuric Acid Mist	No. 2 fuel oil with 0.3% avg. and 0.5% max. sulfur	69	469 ^(b)	BACT

^(a) Emission rates based on 59°F and 15% O₂.

^(b) Equivalent to 3390 hours per year at peak load and 38.7% capacity factor.

^(c) Total TPY CAP for SO₂ assumes 33% capacity factor and fuel sulfur content of 0.30%.

Memorandum

Florida Department of Environmental Protection

TO: Clair Fancy

FROM: Al Linero *Al Linero 2/14*

DATE: February 14, 1997

SUBJECT: FPC DeBary - Natural Gas Use for Peaking Units P7-P10

Attached is a reissued and modified PSD construction permit for the four oil-fired peaking units at DeBary which are slated for addition of natural gas firing capability.

The revision deletes from the permit two authorized units which were never constructed, while allowing firing of natural gas which is available to FPC on an interruptible basis.

The key issue is that they have not operated long enough to establish representative past actual emissions for peaking units. At the same time, hourly emissions are greatly reduced when firing natural gas. Therefore it is reasonable to assume that past allowable emissions can be substituted for past actual emissions as allowed by rule. This results in no significant emissions increases and therefore the project is not subject to PSD or BACT.

FPC has agreed to accept a lower NOx limit (25 ppm) when firing natural gas by use of the presently installed water injection capability. It is doubtful that subjecting these units to a new BACT determination would result in additional control requirements because of the intermittent and low usage of these units resulting in high costs per ton of pollutant removed.

I have attached a Guidance Memo from EPA for a similar case involving addition of gas capability at peaking units. Although I do not agree with the rationale, both the facts and conclusions (with which I agree) are similar to what we are proposing here.

I recommend your approval and signature.

AAL/aal/l

Attachments: