

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF PERMIT

In the Matter of an
Application for Permit Modification by:

Florida Power Corporation (FPC) -Intercession City Plant
Post Office Box 14042 – MAC BB1A
St. Petersburg, Florida 33733

DEP File No. 1270028-004-AC (PSD-FL-167 J)
De Bary Power Plant
Units 7-10 Inlet Fogger Project
Volusia County

Enclosed is the Final Permit Number 1270028-004-AC (PSD-FL-167 J) for a modification of FPC's existing air construction permit to install foggers at the compressor inlets of four 93-megawatt natural gas and No. 2 fuel oil-fired General Electric PG7111EA combustion turbine-electrical generators at the DeBary Power Plant in Volusia County

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.



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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT MODIFICATION (including the FINAL permit modification) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 3-31-00 to the person(s) listed:

W. Jeffrey Pardue, FPC*
Jennifer A. Stenger, P.E., FPC
Len Kozlov, DEP, CD
Gregg Worley, EPA
John Bunyak, NPS

Clerk Stamp

FILED AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


(Clerk)

3-31-00
(Date)

FINAL DETERMINATION

Florida Power Corporation
De Bary Power Plant
Units 7-10 Inlet Fogger Project
Volusia County
DEP File No. 1270028-004-AC (PSD-FL-167 J)

An Intent to Issue an air construction permit was distributed on February 14, 2000. The project is the installation of evaporative cooling systems (foggers) at the compressor inlets of four existing 93 MW combustion turbine-electrical generators located at the FPC DeBary Plant. This facility is located on West Highbanks Road, Volusia County.

The Public Notice of Intent to Issue Air Construction Permit was published in The News-Journal on February 14, 2000. No comments were received as a result of the public notice.

A specific reporting requirement was added related to the number of hours that the foggers will be permitted to operate. The permit and DEP file numbers were reconciled to account for all of the previous revisions to the original project to construct the four combustion turbine-electrical generators. The permit number is revised from PSD-FL-167C to PSD-FL-167J.

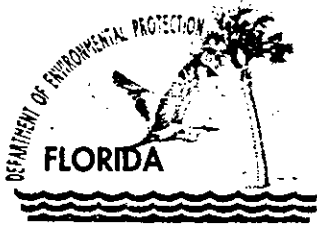
The final action of the Department will be to issue the permit as noticed except for the changes noted above.

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Received by (Please Print Clearly) B. Date of Delivery <i>[Signature]</i> 488 03 2008</p> <p>C. Signature <input type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to: Mr. Jeffrey Pardue, CEP FPC P O Box 14042-MAC 881A St. Petersburg, FL 33733</p>	<p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number (Copy from service label)</p>	<p>2 031 391 895</p>
<p>PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789</p>	

2 031 391 895

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

PS Form 3800, April 1995	Sent to <i>Jeffrey Pardue</i>
	Street & Number <i>FPC</i>
	Post Office, State, & ZIP Code <i>St. Pete FL</i>
	Postage \$
	Certified Fee
	Special Delivery Fee
	Restricted Delivery Fee
	Return Receipt Showing to Whom & Date Delivered
	Return Receipt Showing to Whom, Date, & Addressee's Address
	TOTAL Postage & Fees \$
Postmark or Date <i>1270028-004-AC 3-31-00</i> <i>PSD-FL-167J</i>	



Jeb Bush
Governor

Department of Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

David B. Struhs
Secretary

PERMITTEE:

Florida Power Corporation
Post Office Box 14042 MAC BB1A
St. Petersburg, Florida 33733

Authorized Representative:

W. Jeffrey Pardue, CEP
Director, Environmental Services

DEP File No.	1270028-004-AC
Permit No.	PSD-FL-167 J
Project	Peaking Unit Nos. 7-10
SIC No.	4911
Expires:	December 31, 2000

PROJECT AND LOCATION:

Re-issued and modified permit for the construction of four simple cycle combustion turbine-electrical generators (Peaking Units Nos. 7-10). This action also provides for installation of inlet foggers on the four 92.9 megawatt simple cycle General Electric PG7111EA combustion turbine-electrical generators units (Peaking Units 7-10), identified in the Department's ARMS database as E.U.Nos. 015 - 018.

The units are located at the FPC DeBary City Plant, 788 West Highbanks Rd, Volusia County.
The UTM coordinates are: Zone 17; 467.5 km E and 3197.2 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The above named permittee is authorized to 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).

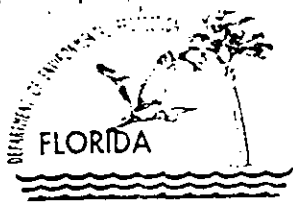
ATTACHED APPENDICES MADE A PART OF THIS PERMIT:

Appendix GC Construction Permit General Conditions
Appendix SC Specific Conditions (including Permit 1270028-002-AC (PSD-FL-167B))

Howard L. Rhodes, Director
Division of Air Resources
Management

APPENDIX SC
SPECIFIC CONDITIONS

1. This permit, PSD-FL-167J (DEP File 1270028-004-AC), supersedes permit PSD-FL-167B (DEP Files 1270028-002-AC and AC64-191015B) issued on May 6, 1997.
2. The provisions of air construction permit PSD-FL-167B (DEP Files 1270028-002 and AC64-191015B) issued May 6, 1997 are attached and incorporated into this air construction permit except for the changes that follow in Specific Condition 3-5 below.
3. Evaporative cooling systems (foggers) may be installed at the compressor inlet to each of the four simple cycle General Electric PG7111EA combustion turbine-electric generators.
4. The inlet evaporative cooling systems may operate up to 4900 hours per year in aggregate (average 1225 hours per unit per year).
5. The permittee shall record on a monthly basis in a written log the number of hours of operation for each evaporative cooling system and the total combined hours of operation for the previous 12 months for all four evaporative cooling systems. [Rule 62-4.160(15), F.A.C.]



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

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

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 62-750.300, 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 (A)
 - (b) Determination of Prevention of Significant Deterioration (A); and
 - (c) Compliance with New Source Performance Standards (A).
- 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

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.

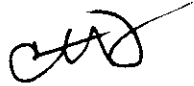
^(b) Equivalent to 3390 hours per year at peak load and 38.7% capacity factor.


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

Memorandum

Florida Department of
Environmental Protection

TO: Howard L. Rhodes

THRU: Clair H. Fancy 

FROM: Al Linero 
Teresa Heron

DATE: March 24, 2000

SUBJECT: FPC DeBary Plant Inlet Fogger Project
DEP File No. 1270028-004-AC (PSD-FL-167 J)

Attached is the final permit for the inlet fogger project for this facility. The permit is to install foggers ahead of the compressor inlets of four simple cycle combustion turbines. The foggers will operate on hot days and days of relatively low humidity. The evaporative cooling effected by the foggers will allow the units to operate closer to their rated capacity. On a hot dry day, FPC may be able to get another 20 MW out of the facility.

Emissions will increase because the heat rate through the units will increase when the foggers are used and effectively cool the inlet air. FPC proposes to limit operation of the coolers to 1,225 hours per unit per year to insure PSD is not triggered by their use.

We recommend your signature and approval.

AAL/th

Attachments