

Florida Department of
Environmental Protection

Memorandum

TO: Michael G. Cooke

THRU: Trina L. Vielhauer *TV*
A. A. Linero

FROM: Teresa Heron *T.H.*

DATE: August 14, 2003

SUBJECT: Peaking Mode of Operation for the Six Combined Cycle Combustion Turbines
FPL Ft. Myers 1500 MW Project
DEP File No. 0710002-014-AC

Attached for approval and signature is the final permit package for a construction permit modification for the FPL Fort Myers facility.

This permit modification is to allow peak operation mode up to 400 hours per year for each of the existing six combined cycle turbines. Peaking is expected to increase short term NO_x emissions from 9 to 15 ppmvd for each turbine and 51 TPY for all six turbines due to higher temperatures during this mode. However, due to the substantial emissions decrease of this pollutant during the permitting of the repowering project in 1998, this project will not result in a net increase of NO_x emissions or any other criteria pollutants.

We have determined that the current project nets out of PSD for all pollutants because of the very substantial emissions reductions resulting from the 1998 repowering project at the site.

We recommend your approval and signature.

AAL/th

Attachments

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF PERMIT

In the Matter of an
Application for Permit Modification by:

Mr. William Reichel, Plant General Manager
Florida Power & Light
Post Office Box 430
Ft. Myers, Florida 33905

DEP File No. 0710002-014-AC
Peak Mode Operation
1500 MW Combined Cycle Turbines
Ft. Myers Power Plant

Enclosed is the Final Permit Number 0710002-014 AC for an air construction permit to authorize peak mode operation for each 250 MW combined cycle turbine at the Fort Myers Plant in Lee County. This permit is issued pursuant to Chapter 403, Florida Statutes.

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.



Trina L. Vielhauer, Chief
Bureau of Air Regulation

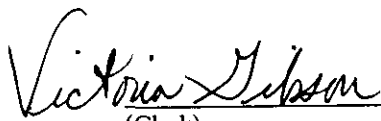
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 8/14/03 to the person(s) listed:

William Reichel, FPL*
Kevin Washington, FPL
Ron Blackburn, DEP SD
Doug Neely, EPA
John Bunyak, NPS
Chair, Lee County Commission*
Ken Kosky, P.E., Golder Associates

Clerk Stamp

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

 August 14, 2003
(Clerk) (Date)

FINAL DETERMINATION

Florida Power and Light Company (FPL)
Ft. Myers Power Plant, Lee County
1500 MW Combined Cycle Turbines Peak Mode of Operation
DEP File No: 0710002-014-AC

An Intent to Issue an air construction permit authorizing peak operation mode up to 400 hours per year for each of the six combined cycle turbines at the Ft Myers Power Plant was distributed on April 22, 2003. This facility is located at 10650 State Road 80, Lee County, Florida.

The Public Notice of Intent to Issue Air Construction Permit was published in the Fort Myers News-Press on July 15, 2003. Comments from FPL were received as a result of the Public Notice.

FPL requested to revise Specific Conditions No. 4 to clarify that the lb/hr emissions are at ISO conditions and to revise Specific Condition No. 5 to include testing requirement for only two of the six units.

The Department considered FPL's request and revised Specific Conditions No. 4 and 5 as follows:

4. Peaking Mode Operation Limits:

The combined cycle gas turbines are subject to the following emission limits during peaking mode operation. Emissions limits are corrected to 15% O₂ (**lb/hr at ISO Conditions**).

Emission Unit ARMS 018-023	NO _x	CO	VOC	PM/Visibility (% Opacity)	Technology and Comments
Combustion Turbines	15 ppmvd (24-hr block avg) 102 lb/hr	9 ppmvd 29 lb/hr	1.4 ppmvd 3 lb/hr	10	Dry Low NO _x Combustors Natural Gas, Good Combustion

Averaging Time: A 24-hour block shall begin at midnight of each operating day and shall be calculated from 24 consecutive hourly average emission rate values. If a unit operates less than 24 hours during the block, the 24-hour block average shall be the average of available valid hourly average emission rate values for the 24-hour block. For purposes of determining compliance with the 24-hour CEMS standards, missing (or excluded) data shall not be substituted. Instead, the 24-hour block average shall be determined using the remaining hourly data in the 24-hour block. Peaking mode of operation shall be excluded from compliance with the 30-day rolling average.

[Applicant Request, Rules 62-210.200 (Definitions-Potential Emissions), and 62-4.070(3), F.A.C.].

5. Peaking Mode Operation Compliance Requirements:

Compliance with the allowable emission limiting standards shall be determined within 60 days after achieving the maximum production rate at which each unit will be operated, but not later than 180 days following initial operation of the unit in the *peaking* mode, by using the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.

The following reference methods shall be used. No other test methods may be used for compliance testing unless prior DEP approval is received in writing.

EPA Reference Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources".

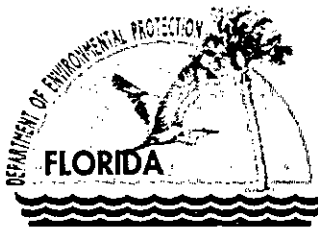
EPA Reference Method 7, "Determination of Nitrogen Oxides Emissions from Stationary Sources.

Compliance for each pollutant after the initial tests shall be the same as outlined in the original permit 0710002-004-AC issued on 11/25/98.

Testing for peak operation may be carried out on two of the units. The Department will consider testing of two of the units to be representative of all six units.

[Application; Rules 62-210.200(PTE) and 62-4.070 (3), F.A.C.]

The final action of the Department will be to issue the permit with the changes noted above.



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

PERMITTEE:

Florida Power & Light Company
Fort Myers Power Plant
Post Office Box 430
Fort Myers, Florida 33905

Permit No.	0710002-014-AC
Project:	1500 MW Combined Cycle Turbines Peak Mode of Operation
SIC No.	4911
Expires:	July 1, 2004

Authorized Representative:

William Reichel
Plant General Manager

PROJECT AND LOCATION:

This permit authorizes peak operation mode for up to 400 hours per year for each of the existing six combined cycle turbines that comprise the 1500 MW repowering project. Each unit is a 170 megawatt General Electric MS7241FA gas-fired combustion turbine-generator with an unfired heat recovery steam generator (HRSG) that raises sufficient steam to produce another 80 MW via the existing steam-driven electrical generators.

This facility is located at 10650 State Road 80 near Tice, Lee County. UTM coordinates are: Zone 17; 422.3 km E and 2,952.9 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 APPENDIX MADE A PART OF THIS PERMIT:

Appendix GC General Conditions

Michael G. Cooke, Director
Division of Air Resources
Management

AIR CONSTRUCTION PERMIT 0710002-014-AC
SPECIFIC CONDITIONS

1. The provisions of air construction permit DEP File 0710002-004-AC issued on 11/25/98 and subsequent revisions 0710002-005-AC issued on 7/20/99; 0710002-006-AC issued on 10/15/99; 0710002-008-AC issued on 6/14/00 and 0710002-013-AC issued on 4/22/03 are not modified by this permitting action.
2. This permit (No. 0710002-014-AC), supplements original Permit No. 0710002-004-AC issued on 11/25/98 and regulates emissions during high temperature peaking mode operation.
3. Each gas turbine may operate in a high-temperature *peaking* mode to generate additional direct, shaft-driven electrical power to respond to peak demands. During any consecutive 12 months, each combined cycle gas turbine shall operate in this peaking mode for no more than 400 hours of operation. The maximum heat input rate to each gas turbine is 1838 MMBtu per hour in peak mode operation (based on a compressor inlet air temperature of 59° F, the lower heating value (LHV) of each fuel, and 100% load).
4. Peaking Mode Operation Limits:

The combined cycle gas turbines are subject to the following emission limits during peaking mode operation. Emissions limits are corrected to 15% O₂ (lb/hr at ISO Conditions).

Emission Unit	NO _x	CO	VOC	PM/Visibility (% Opacity)	Technology and Comments
ARMS 018-023					
Combustion Turbines (each)	15 ppmvd (24-hr block avg) 102 lb/hr	9 ppmvd 29 lb/hr	1.4 ppmvd 3 lb/hr	10	Dry Low NO _x Combustors Natural Gas, Good Combustion

Averaging Time: A 24-hour block shall begin at midnight of each operating day and shall be calculated from 24 consecutive hourly average emission rate values. If a unit operates less than 24 hours during the block, the 24-hour block average shall be the average of available valid hourly average emission rate values for the 24-hour block. For purposes of determining compliance with the 24-hour CEMS standards, missing (or excluded) data shall not be substituted. Instead, the 24-hour block average shall be determined using the remaining hourly data in the 24-hour block. Peaking mode of operation shall be excluded from compliance with the 30-day rolling average.

[Applicant Request, Rules 62-210.200 (Definitions-Potential Emissions), and 62-4.070(3), F.A.C.].

5. Peaking Mode Operation Compliance Procedures:

Compliance with the allowable emission limiting standards shall be determined within 60 days after achieving the maximum production rate at which each unit will be operated, but not later than 180 days following initial operation of the unit in the *peaking* mode, by using the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.

The following reference methods shall be used. No other test methods may be used for compliance testing unless prior DEP approval is received in writing.

EPA Reference Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources".

AIR CONSTRUCTION PERMIT 0710002-014-AC
SPECIFIC CONDITIONS

EPA Reference Method 7, "Determination of Nitrogen Oxides Emissions from Stationary Sources.

Compliance for each pollutant after the initial tests shall be the same as outlined in the original permit 0710002-004-AC issued on 11/25/98.

Testing for peak operation may be carried out on two of the units. The Department will consider testing of two of the units to be representative of all six units.

[Application; Rules 62-210.200(PTE) and 62-4.070 (3), F.A.C.]

6. Title V Permit: This permit authorizes modification of the emissions units and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

APPENDIX GC
GENERAL CONDITIONS

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

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.
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, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
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.
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.
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.
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.
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.

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.

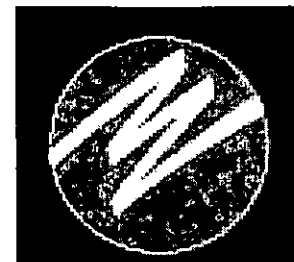
9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving 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.

APPENDIX GC
GENERAL CONDITIONS

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.
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.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - a. Determination of Best Available Control Technology (not applicable to project);
 - b. Determination of Prevention of Significant Deterioration (not applicable to project); and
 - c. Compliance with New Source Performance Standards.
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.
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.

mike - This is just FYI on the 1998 reductions.

Ft. Myers Repowering



<u>Pollutant</u>	<u>From</u>	<u>To(tpy)</u>
Sulfur Dioxide	20,500	137
Nitrogen Oxides*	7,100	1,845
Sulfuric Acid	915	21
PM ₁₀	607	313
CO	1507	1,247

* From 3.2 to 0.26 lb/MWH (9 ppmvd by DLN)

SENDER: COMPLETE THIS SECTION

- 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.

1. Article Addressed to:

Ray Judah, Chair
 Lee County Board of
 County Commission
 Post Office Box 398
 Ft. Myers, FL 33902-0398

2. 7001 0320 0001 3692 5412

PS Form 3811, July 1999

Domestic Return Receipt

102595-99-M-1789

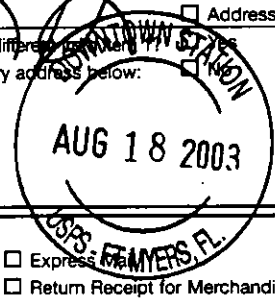
COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) B. Date of Delivery

Genoveva Garcia 8/18/03

C. Signature Agent
 Addressee

D. Is delivery address different from item 1?
 If YES, enter delivery address below:



3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

**U.S. Postal Service
 CERTIFIED MAIL RECEIPT**

(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To
 Ray Judah
 Street, Apt. No.,
 or PO Box 398
 City, State, ZIP+4
 Ft. Myers, FL 33902-0398

PS Form 3800, January 2001

See Reverse for Instructions

**U.S. Postal Service
 CERTIFIED MAIL RECEIPT**

(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To
 William Reichel
 Street, Apt. No.,
 or PO Box 430
 City, State, ZIP+4
 Ft. Myers, FL 33905

PS Form 3800, January 2001

See Reverse for Instructions

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. William Reichel
 Plant General Manager
 Florida Power & Light
 Post Office Box 430
 Ft. Myers, FL 33905

2. 7001 0320 0001 3692 5429

PS Form 3811, July 1999

Domestic Return Receipt

102595-99-M-1789

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) B. Date of Delivery

MARY K. Russell

C. Signature Agent
 Addressee

D. Is delivery address different from item 1?
 If YES, enter delivery address below: No

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes