

Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

January 23, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Carine Bullock, Production Manager
Florida Power and Light Company, Martin Power Plant
P.O. Box 176
Indiantown, FL 34956-0176

Re: Project No. 0850001-011-AC
Air Permit No. PSD-FL-286A
FPL Martin Power Plant, Simple Cycle Peaking Units 8A and 8B
Revised Specific Condition No. 18, Excess Emissions

Dear Ms. Bullock:

Enclosed is one copy of the Draft Permit that revises Condition No. 18 in Permit No. PSD-FL-286, which relates to excess emissions from simple cycle Units 8A/8B. The existing units are installed at the FPL Martin Plant, which is located in the western part of unincorporated Martin County approximately seven miles north of Indiantown on State Road 710. The Department's "Technical Evaluation and Preliminary Determination", "Intent to Issue Permit", and the "Public Notice of Intent to Issue Permit" are also included.

The "Public Notice of Intent to Issue Permit" must be published one time only, as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area affected, pursuant to the requirements Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit. The Department understands that FPL may wish to publish a dual public notice in conjunction with a revised Title V permit renewal and, therefore, the notice may be slightly different than presented in the attached document.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, Administrator of the New Source Review Section, at the above letterhead address. If you have any other questions, please contact Jeff Koerner at 850/921-9536.

Sincerely,

Trina Vielhauer, Chief
Bureau of Air Regulation

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

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. 	A. Signature <input checked="" type="checkbox"/> Michael Rahn <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee
1. Article Addressed to: Ms. Carine Bullock Production Manager Florida Power & Light Company Martin Power Plant Post Office Box 176 Indiantown, FL 34956-0176	B. Received by (Printed Name) C. Date of Delivery MICHAEL ROCK 1-31-03
2. 7001 0320 0001 3692 7003	D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No
	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. 4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes

U.S. Postal Service CERTIFIED MAIL RECEIPT <i>(Domestic Mail Only; No Insurance Coverage Provided)</i>											
7001 0320 0001 3692 7003	<table border="1"> <tr> <td>Postage</td> <td>\$</td> </tr> <tr> <td>Certified Fee</td> <td></td> </tr> <tr> <td>Return Receipt Fee (Endorsement Required)</td> <td></td> </tr> <tr> <td>Restricted Delivery Fee (Endorsement Required)</td> <td></td> </tr> <tr> <td>Total Postage & Fees</td> <td>\$</td> </tr> </table>	Postage	\$	Certified Fee		Return Receipt Fee (Endorsement Required)		Restricted Delivery Fee (Endorsement Required)		Total Postage & Fees	\$
Postage	\$										
Certified Fee											
Return Receipt Fee (Endorsement Required)											
Restricted Delivery Fee (Endorsement Required)											
Total Postage & Fees	\$										
<table border="1"> <tr> <td colspan="2">Sent To</td> </tr> <tr> <td colspan="2">Carine Bullock</td> </tr> <tr> <td colspan="2">Street, Apt. No., or P.O. Box 176</td> </tr> <tr> <td colspan="2">City, State, ZIP+4 Indiantown, FL 34956-0176</td> </tr> </table>		Sent To		Carine Bullock		Street, Apt. No., or P.O. Box 176		City, State, ZIP+4 Indiantown, FL 34956-0176			
Sent To											
Carine Bullock											
Street, Apt. No., or P.O. Box 176											
City, State, ZIP+4 Indiantown, FL 34956-0176											
PS Form 3800, January 2001 See Reverse for Instructions											

In the Matter of an
Application for Air Permit by:

Florida Power and Light Company, Martin Power Plant
P.O. Box 176
Indiantown, FL 34956-0176

Authorized Representative:

Ms. Carine Bullock, Production Manager

Project No. 0850001-011-AC
Air Permit No. PSD-FL-286A
Simple Cycle Peaking Units 8A/8B
Revised Condition, Excess Emissions
Martin County, Florida

INTENT TO ISSUE AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy of Draft Permit attached) for the proposed project as detailed in the application and the enclosed Technical Evaluation and Preliminary Determination, for the reasons stated below. The applicant, Florida Power and Light Company, applied on December 20, 2002 to the Department for a permit to modify the condition related to excess emissions for simple cycle Units 8A/8B. The existing units are installed at the FPL Martin Plant, which is located in the western part of unincorporated Martin County approximately seven miles north of Indiantown on State Road 710.

The Department has permitting jurisdiction under the provisions of Chapter 403, F.S., and Chapters 62-4, 62-210, and 62-212, F.A.C. The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit is required. The Department intends to issue this air construction permit based on the belief that the applicant has provided reasonable assurances 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 62-110.106(7)(a)1, 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. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. 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. 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. You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in Section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) and (11), F.A.C.

The Department will issue the final permit with the attached conditions 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 permit issuance action for a period of fourteen (14) days from the date of publication of Public Notice of Intent to Issue Air Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under 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 at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S. however, any person who asked the Department for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall 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 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 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

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. 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.

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. Mediation is not available in this proceeding. 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.

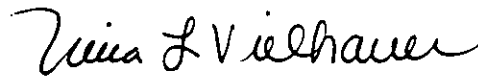
The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number 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.



Trina Vielhauer, Chief
Bureau of Air Regulation

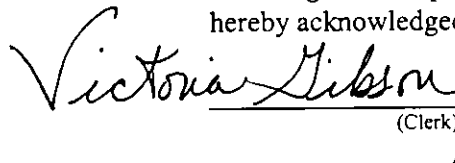
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue Air Construction Permit package (including the Public Notice of Intent to Issue Air Construction Permit, Technical Evaluation and Preliminary Determination, and the Draft Permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 1/24/03 to the persons listed:

- Ms. Carine Bullock, FPL *
- Mr. John Hampp, FPL
- Mr. Edward Preast, FPL
- Mr. Tom Tittle, SED
- Mr. Gregg Worley, EPA Region 4
- Mr. John Bunyak, NPS

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.

 / January 24, 2003
(Clerk) (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Project No. 0850001-011-AC
Draft Air Permit No. PSD-FL-286A

Florida Power and Light Company
FPL Martin Power Plant
Revised Condition, Excess Emissions

The Department of Environmental Protection (Department) gives notice of its intent to issue a modification of Permit No. PSD-FL-286 to the Florida Power and Light Company (applicant) that revises Condition No. 18 related to excess emissions from existing simple cycle Units 8A/8B. The existing units are installed at the FPL Martin Plant, which is located in the western part of unincorporated Martin County approximately seven miles north of Indiantown on State Road 710. The applicant's authorized representative is Ms. Carine Bullock, Production Manager of the Martin Plant. The applicant's mailing address is Florida Power and Light, P.O. Box 176, Indiantown, FL 34956-0176.

The applicant requests revision of Specific Condition No. 18 in the existing permit to be more consistent with Rule 62-210.700, F.A.C., which regulates periods of excess emissions and is the basis for the requirements. The applicant also requests that the condition recognize a 1-hour period for excess emissions due to a switch from distillate oil to natural gas. Such a fuel switch is typically complete in less than 25 minutes and results in reduced emissions once the unit is firing natural gas. The proposed Draft Permit incorporates these changes.

The Department will issue the Final Permit with the attached conditions 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 permit issuance action for a period of fourteen (14) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under 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 at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall 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 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 28-106.205, F.A.C.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

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. 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 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)
2600 Blair Stone Road, MS #5505
Tallahassee, Florida, 32399-2400
Telephone: 850/488-0114

Department of Environmental Protection
Southeast District Office
Air Resources Section
400 North Congress Avenue
West Palm Beach, FL 33416-5425
Telephone: 561/681-6600

The complete project file includes the application, Technical Evaluation and Preliminary Determination, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Department's reviewing engineer for this project for additional information at the address and phone numbers listed above.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

**TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION**

PROJECT

Project No. 0850001-011-AC
Air Permit No. PSD-FL-286A
(Modification of Original Air Permit No. PSD-FL-286)
FPL Martin Plant, Simple Cycle Units 8A and 8B
Emissions Units 11 and 12

COUNTY

Martin County

APPLICANT

Florida Power and Light Company
FPL Martin Power Plant
ARMS Facility ID No. 0850001

**PERMITTING
AUTHORITY**

Florida Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
New Source Review Section



January 23, 2003

{Filename: 286A TEPD.doc}

1. GENERAL PROJECT INFORMATION

Applicant Name and Address

Florida Power and Light Company – Martin Plant
P.O. Box 176
Indiantown, FL 34956-0176

Authorized Representative:

Ms. Carine Bullock, Production Manager

Processing Schedule

12/20/02 Received application to modify the condition regarding excess emissions.

Facility Description and Location

Existing simple cycle gas turbine Units 8A and 8B are installed at the existing FPL Martin Power Plant located in the western part of unincorporated Martin County approximately seven miles north of Indiantown on State Road 710. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to a National Ambient Air Quality Standard (NAAQS).

Standard Industrial Classification Code (SIC)

SIC No. 4911 – Electrical Services

Regulatory Categories

Title III: The existing facility is identified as a potential major source of hazardous air pollutants (HAP).

Title IV: The existing facility has operates units subject to the acid rain provisions of the Clean Air Act.

Title V: The existing facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

PSD: The existing facility is a PSD-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The existing facility operates units subject to the New Source Performance Standards of 40 CFR 60.

Project Description

The applicant requests clarification and revision of Specific Condition No. 18(d):

From:

18. Excess Emissions Allowed: For each combustion turbine, excess NOx and visible emissions during startup, shutdown, and documented malfunction shall be allowed, providing:

- (d) During all startups, shutdowns, and malfunctions, the NOx CEM shall monitor and record NOx emissions. For each calendar day, up to two 1-hour monitoring averages may be excluded from the continuous NOx compliance demonstration for each combustion turbine due to excess NOx emissions resulting from startup, shutdown, and documented malfunction. For excess NOx emissions due to malfunction, the permittee shall notify the Compliance Authority within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident.

To:

18. Excess Emissions Allowed: For each combustion turbine, excess NOx and visible emissions during startup, shutdown, and documented malfunction shall be allowed, providing:

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

- (d) Excess emissions resulting from startup, shutdown, or documented malfunctions shall not exceed two hours in any 24-hour period except for excess emissions resulting from oil-to-gas fuel switching which shall not exceed 1 hour in any 24-hour period.
- (e) For excess NO_x emissions due to malfunction, the permittee shall notify the Compliance Authority within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident.

{Renumber (e) as (f).}

The requested change more closely reflects the language in Rule 62-210.700, F.A.C. (Excess Emissions). In addition, it recognizes that a fuel switch from oil-to-gas can cause a brief period of elevated emissions.

2. DEPARTMENT'S REVIEW

Units 8A and 8B employ General Electric's latest dry low-NO_x (DLN) combustion system for the Frame 7FA gas turbines, which provides lean premixed combustion of natural gas to reduce nitrogen oxide (NO_x) emissions. DLN combustion combined with the Speedtronic™ automated gas turbine control system works to provide quick, automated startups and shutdowns that typically result in minimal amounts and durations of excess emissions. While bringing the unit up to operating load during a simple cycle startup, the DLN system progresses through a series of air and fuel staging in the combustors to eventually achieve full lean premixed combustion. Operation in this mode lowers peak flame temperatures, which reduces NO_x emissions. It also provides a more homogeneous temperature profile throughout flame front, which minimizes "hot" and "cold" spots and allows simultaneous reductions in emissions of carbon monoxide (CO), volatile organic compounds (VOC), and organic hazardous air pollutants such as formaldehyde.

A typical startup to simple cycle operation for these units lasts approximately 15 to 20 minutes. By this time, the gas turbine has achieved full lean premixed combustion and is at 40% to 50% of base load operation. As peaking units, the gas turbine would continue to ramp up to full load. Based on actual CEMS data for similar units (Mulkey, 2003), it is estimated that NO_x emissions during the first full hour of operation would be approximately 70 to 80 pounds per hour. This compares to approximately 60 pounds per hour for the unit during normal operation at full load.

Units 8A and 8B are permitted to fire natural gas or a restricted amount of very low sulfur distillate oil (< 500 hours per year). When firing distillate oil, the units rely on more conventional diffusion flame combustors and must employ a water injection system to quench the peak flame temperature and reduce NO_x emissions. The NO_x emissions at base load operation for distillate oil firing approach more than 300 pounds per hour. Occasionally, it may be necessary to switch fuels while the units are in operation. A gas-to-oil fuel switch involves a brief period to ramp down the load, begin oil firing, reduce gas firing, and initiate the water injection system on-line. This process only takes about ten minutes and should not result in excess emissions. An oil-to-gas fuel switch involves a period to ramp down the load, begin gas firing within the DLN combustion sequence, reduce oil firing, and shut off the water injection system. This process takes about 15 to 20 minutes and can result in excess emissions. However, once the unit is firing natural gas, the NO_x emissions are reduced by 80% over oil firing.

Excess emissions from utility gas turbines focus on NO_x emissions for a variety of reasons. NO_x is identified as the primary pollutant of concern, is regulated by a New Source Performance Standard (Subpart GG), and has proven to be difficult to control. However, the main reason for this focus is that the large utility units have Continuous Emissions Monitoring Systems (CEMS) for recording NO_x emissions due to the federal Acid Rain Program and PSD preconstruction review. Although emissions of carbon monoxide, particulate matter, and volatile organic compounds may increase during startups and shutdowns, the compliance status for these pollutants is unknown during these periods.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

The Department believes the applicant's requests are reasonable and will not result in any emissions increases. However, the original requirement to continuously record NOx emissions during all periods of startups, shutdowns, and malfunctions will be retained. Fuel switching will also be added to this list. For clarity, the condition regarding fuel switching will be added as a separate sentence. The revised condition will be:

18. Excess Emissions Allowed: For each combustion turbine, excess NOx and visible emissions during startup, shutdown, and documented malfunction shall be allowed, providing:
- (d) Excess emissions resulting from startup, shutdown, or documented malfunctions shall not exceed two hours in any 24-hour period. Excess emissions resulting from oil-to-gas fuel switching shall not exceed 1 hour in any 24-hour period.
 - (e) The NOx CEMS shall monitor and record NOx emissions during all periods of operation including startup, shutdown, malfunction, and fuel switching. For excess NOx emissions due to malfunction, the permittee shall notify the Compliance Authority within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident.

{Renumber (e) as (f).}

3. PRELIMINARY DETERMINATION

A file review shows that the original PSD permit expired on January 1, 2003. In accordance with Guidance Memorandum No. DARM-PER-20, it will be necessary to issue a new air construction permit that incorporates all of the previous permit conditions except for the specific revisions requested. It was also necessary to extend the expiration date to provide a valid permit to modify and allow sufficient time to complete the application for a concurrent Title V permit revision.

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions. Jeff Koerner is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

DRAFT PERMIT

PERMITTEE:

Florida Power and Light Company
P.O. Box 176
Indiantown, FL 34956

Authorized Representative:

John M. Lindsay, Plant General Manager

Project No. 0850001-011-AC Permit No. PSD-FL-286A FPL Martin Power Plant Facility ID No. 0850001 SIC No. 4911 Expires: December 1, 2003
--

PROJECT AND LOCATION

Issued on July 21, 2000, original Permit No. PSD-FL-286 authorized the installation of two simple cycle, 170 MW gas turbines. The units were constructed at the existing FPL Martin Power Plant located in the western part of unincorporated Martin County approximately seven miles north of Indiantown on State Road 710. The UTM coordinates are Zone 17, 543.1 km E, 2992.9 km N and the map coordinates are Latitude 27° 03' 13", Longitude 80° 33' 46". Construction is complete and the units are in operation. On July 9, 2002, the expiration date was extended to provide the necessary time to submit a complete application for a Title V air operation permit. This modification revises Specific Condition No. 18 (excess emissions) in Section III for gas turbine Units 8A and 8B. It also extends the expiration date to provide a valid permit for modification and to allow additional time to complete the application for a concurrent Title V permit revision.

APPLICABLE REQUIREMENTS

This air pollution construction permit is issued under the provisions of Chapter 403, F.S., and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. All of the original conditions of Permit No. PSD-FL-286 issued on July 21, 2000 are incorporated by reference into this air construction permit modification except for the changes made to this placard page and Specific Condition No. 18 on revised Page 11 (attached). No new construction is authorized. A copy of the original PSD permit is attached as part of this permit.

APPENDICES

The following Appendices are attached as part of this permit.

- Appendix A. Terminology
- Appendix BD. Department's BACT Determinations
- Appendix E. Emissions Standards Summary
- Appendix GC. Construction Permit General Conditions
- Appendix GG. NSPS Subpart GG Requirements for Gas Turbines
- Appendix XS. CEMS Excess Emissions Report

(DRAFT)

Howard L. Rhodes, Director
Division of Air Resources Management

(Revision Date)

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

COMBUSTION TURBINES (DRAFT MODIFICATION)

18. Excess Emissions Allowed: For each combustion turbine, excess NO_x and visible emissions during startup, shutdown, and documented malfunction shall be allowed, providing:
- Operators employ best operational practices to minimize the amount and duration of excess emissions.
 - Operation below 50% of base load shall not exceed 120 minutes during any calendar day.
 - During startup and shutdown, visible emissions excluding water vapor shall not exceed 20% opacity for up to ten, 6-minute observation periods during any calendar day. Data for each observation period shall be exclusive for the ten periods.
 - Excess emissions resulting from startup, shutdown, or documented malfunctions shall not exceed two hours in any 24-hour period. Excess emissions resulting from oil-to-gas fuel switching shall not exceed 1 hour in any 24-hour period.
 - The NO_x CEMS shall monitor and record NO_x emissions during all periods of operation including startup, shutdown, malfunction, and fuel switching. For excess NO_x emissions due to malfunction, the permittee shall notify the Compliance Authority within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident.
 - If the permittee provides at least 5 days advance notice prior to tuning in accordance with the manufacturer's recommendations, up to three 1-hour monitoring averages may be excluded from the continuous NO_x compliance demonstration for each gas turbine due to excess NO_x emissions resulting from tuning. *{Permitting Note: It is expected that no more than two tuning sessions would occur each year.}*

{Permitting Note: This condition was revised in accordance with PSD-FL-286A, Project No. 0850001-011-AC.}

[Design; Rule 62-210.700(1) and (5); Rule 62-4.130, F.A.C.]

EMISSIONS PERFORMANCE TESTING


19. Sampling Facilities: The permittee shall design the combustion turbine stack to accommodate adequate testing and sampling locations in order to determine compliance with the applicable emission limits specified by this permit. Permanent stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C. [Rules 62-4.070 and 62-204.800, F.A.C.; 40 CFR 60.40a(b)]
20. Test Methods: Compliance tests shall be performed in accordance with the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C.
- EPA Method 5 or 17 - Determination of Particulate Matter Emissions from Stationary Sources
 - EPA Method 7E - Determination of Nitrogen Oxide Emissions from Stationary Sources
 - EPA Method 9 - Visual Determination of the Opacity of Emissions from Stationary Sources
 - EPA Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources
 - EPA Method 20 - Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines
 - EPA Methods 25 or 25A - Determination of Volatile Organic Concentrations *{Note: EPA Method 18 may be conducted to account for the non-regulated methane fraction of the measured VOC emissions.}*

No other methods may be used for compliance testing unless prior written approval is received from the administrator of the Department's Emissions Monitoring Section in accordance with an alternate sampling procedure pursuant to 62-297.620, F.A.C. [40 CFR 60, Appendix A; Rule 62-204.800, F.A.C.]

21. Initial Tests Required: Initial performance tests to demonstrate compliance with each emission standard for normal gas firing, gas firing with power augmentation, gas firing with high temperature peaking, and backup distillate oil firing shall be conducted within 60 days after achieving the maximum production rate,

Florida Department of
Environmental Protection

Memorandum

TO: Trina Vielhauer, Bureau of Air Regulation
THRU: Al Linero, New Source Review Section
FROM: Jeff Koerner, New Source Review Section 
DATE: January 23, 2003
SUBJECT: Project No. 0850001-011-AC
Air Permit No. PSD-FL-286A
FPL Martin Power Plant, Simple Cycle Peaking Units 8A and 8B
Revised Specific Condition No. 18, Excess Emissions

Attached for your approval and signature is a modification of Permit No. PSD-FL-286A that revises Condition No. 18. In general, FPL requests that the text of this condition be similar to that of Rule 62-210.700, F.A.C., which is the basis for the requirement. In addition, FPL requests a 1-hour period for excess emissions due to a switch from oil to gas. Such a fuel switch is typically complete in less than 25 minutes and results in reduced emissions once the unit is firing natural gas. The attached technical evaluation explains the request in detail.

In reviewing the file, I discovered that the original PSD permit expired on January 1, 2003. In accordance with Guidance Memorandum No. DARM-PER-20, it will be necessary to issue a new air construction permit that incorporates all of the previous permit conditions except for the specific revisions requested. It was also necessary to extend the expiration date to provide a valid permit to modify and allow sufficient time to complete the application for a concurrent Title V permit revision.

Day #74 is March 3, 2003. I recommend your approval and signature.

Attachments