



# Department of Environmental Protection

Jeb Bush  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400  
Telephone: (850) 488-0114 FAX: (850) 922-6979

Colleen M. Castille  
Secretary

December 1, 2006

*Electronically Sent – Received Receipt Requested*

Mr. Craig Arcari, Plant General Manager  
Martin Power Plant  
Florida Power & Light Company  
700 Universe Boulevard  
Juno Beach, Florida 33408

Re: Martin Power Plant - Intent to Issue Air Permits  
DEP Files Nos. 0850001-016-AC and 0850001-017-AV  
Facility ID: 0850001; ORIS Code: 0643

Dear Mr. Arcari:

Attached are copies of a Draft Air Construction Permit Modification and a DRAFT Title V Air Operation Permit Revision for the Martin Power Plant located in the western part of unincorporated Martin County, approximately seven miles north of Indiantown, on State Road 710, Martin County, Florida. The Department's Intent to Issue Permits, the Public Notice of Intent to Issue Air Permits (the Public Notice), Statement of Basis, and a Technical Evaluation are also included.

Electronic versions of the permits will be posted on the Division of Air Resource Management's world wide web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review at [www.dep.state.fl.us/air/eproducts/ards/default.asp](http://www.dep.state.fl.us/air/eproducts/ards/default.asp).

The Department hereby withdraws the Intent to Issue, the DRAFT Title V Operation Permit Revision, and the Draft Air Construction Permit Modification distributed on August 21, 2006 and replaces those documents with the ones enclosed.

The enclosed Public Notice must be published as soon as possible. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's office within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, Program Administrator, at the above letterhead address. If you have any other questions, please contact Teresa Heron at 850/921-9529 or Mr. Linero at 850/921-9523.

Sincerely,

Trina L. Vielhauer, Chief  
Bureau of Air Regulation

TLV/aal/th

Enclosures

In the Matter of an Application for a Construction Permit Modification and a Title V Permit Revision by:

Florida Power & Light Company 700 Universe Boulevard Juno Beach, Florida 33408	DEP Files: 0850001-016-AC and 0850001-017-AV Related Files: PSD-FL-146C and PSD-FL-327B Facility: Martin Power Plant Location: Martin County
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### INTENT TO ISSUE AIR PERMITS

The Department of Environmental Protection (Department) gives notice of its intent to issue:

- An Air Construction Permit Modification primarily to establish certain startup, testing, and operational conditions for Martin Power Plant Combined Cycle Units 3, 4 and 8; and,
- A Title V Air Operation Permit Revision to incorporate Combined Cycle Unit 8 and the concurrent Air Construction Permit Modification.

Copies of the Draft Air Construction Permit Modification and the DRAFT Title V Air Operation Permit Revision are attached. The details are provided in the application file specified above. The reasons for issuance are stated below.

The applicant, Florida Power & Light Company, applied on March 3, 2006 for modification of conditions in two previously issued Air Construction (PSD) Permits and revision of the Title V Air Operation Permit for the Martin Power Plant. The facility 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, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-212, 62-213, and 62-214. This source is not exempt from construction and Title V permitting procedures. The Department has determined that an Air Construction Permit Modification is required to establish the startup, testing, and operational conditions for Martin Power Plant Combined Cycle Units 3, 4 and 8 and a Title V Air Operation Permit Revision is required to incorporate Combined Cycle Unit 8.

The Department intends to issue the Air Construction Permit Modification and the Title V Air Operation Permit Revision based on the belief that reasonable assurances have been provided to indicate that the construction activity and operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.087, F.S., and Rules 62-110.106 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed PUBLIC NOTICE OF INTENT TO ISSUE PERMITS (Public Notice). The Public Notice shall be published one time only as soon as possible 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. 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, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax: 850/922-6979), within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication may result in the denial of the permits pursuant to Rule 62-110.106(11), F.A.C.

The Department will issue the Air Construction Permit Modification and the PROPOSED Title V Air Operation Permit Revision and subsequent FINAL Title V Air Operation Permit Revision, in accordance with the conditions of the attached Draft Air Construction Permit Modification and the DRAFT Title V Air Operation Permit Revision 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 Draft Air Construction Permit Modification issuance action for a period of 14 (fourteen) days from the date of publication of the Public Notice. Written comments should be provided to the Department's Bureau of Air Regulation at 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 Air Construction Permit Modification, the Department shall revise the Draft Air Construction Permit Modification and require, if applicable, another Public Notice.

The Department will accept written comments concerning the DRAFT Title V Air Operation Permit Revision issuance action for a period of 30 (thirty) days from the date of publication of the Public Notice. 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 this DRAFT Title V Air Operation Permit Revision, the Department shall further revise the DRAFT Title V Air Operation Permit Revision and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the 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 of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2242; Fax: 850/245-2303).

Petitions filed by the permit applicant or any of the parties listed below must be filed within 14 (fourteen) 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 14 (fourteen) days of publication of the public notice or within 14 (fourteen) 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 14 (fourteen) 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 each 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, as well as the rules and statutes which entitle the petitioner to relief;
- (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.

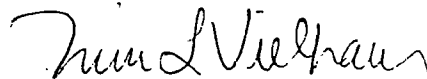
A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

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 of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application(s) have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above. Mediation will not be available in this proceeding.

Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit revision. Any petition shall be based only on objections to the permit revision that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

Executed in Tallahassee, Florida.

**STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION**



Trina L. Vielhauer, Chief  
Bureau of Air Regulation

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR PERMITS (including the combined Public Notice, Technical Evaluation and Preliminary Determination, Draft Air Construction Permit Modification, and the DRAFT Title V Air Operation Permit Revision) were sent electronically (with Received Receipt) before the close of business on 12/1/06 to the person(s) listed below.

Craig Arcari, Florida Power & Light Company: [craig\\_arcari@fpl.com](mailto:craig_arcari@fpl.com)  
John Hampp, Florida Power & Light Company: [john\\_hampp@fpl.com](mailto:john_hampp@fpl.com)  
Darrel Graziani, P.E., Southeast District Office: [darrel.graziani@dep.state.fl.us](mailto:darrel.graziani@dep.state.fl.us)  
Jim Little, U.S. EPA, Region 4: [little.james@epamail.epa.gov](mailto:little.james@epamail.epa.gov)  
Kennard F. Kosky, P.E., Golder Associates, Inc.: [kkosky@golder.com](mailto:kkosky@golder.com)  
Mike Halpin, P.E., Siting Office: [mike.halpin@dep.state.fl.us](mailto:mike.halpin@dep.state.fl.us)

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED,**  
on this date, pursuant to Section 120.52(7), Florida  
Statutes, with the designated agency Clerk, receipt  
of which is hereby acknowledged.

Barbara J. Zuday 12/1/06  
(Clerk) (Date)

## PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMITS

### STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Air Construction Permit Modification No. 0850001-016-AC  
DRAFT Title V Operation Permit Revision No. 0850001-017-AV  
FPL Martin Power Plant - Martin County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue an Air Construction Permit Modification and a Title V Air Operation Permit Revision to the Florida Power & Light Company for the Martin Power Plant, located in the western part of unincorporated Martin County, approximately seven miles north of Indiantown, on State Road 710. The applicant's name and address are: Mr. Craig Arcari, Plant Manager, Florida Power & Light Company, 700 Universe Boulevard, Juno Beach, FL 33408.

This facility consists of two oil and natural gas fired conventional steam electric generating stations (Units 1 and 2) and three natural gas fueled combined-cycle units (Units 3, 4 and 8). Combined Cycle Unit 8 is a nominal 1,150 megawatt (MW) unit that recently began operation. It consists of four combustion turbine/heat recovery steam generator (CT/HRSG) sets and a nominal 470 MW steam turbine electric generator (STG). Pollutants from Unit 8 are controlled by use of inherently clean natural gas, Dry Low NO<sub>x</sub>/CO combustors, and selective catalytic reduction (SCR).

All physical construction related to Combined Cycle Unit 8 is complete and the unit is in operation. A Modification of the current Unit 8 Air Construction/PSD Permit will be issued that will allow excess emissions from individual CT/HRSG sets for a period of eight rather than six hours during future cold startups of the 470 MW STG. Such cold startups of a STG are infrequent and typically years apart for baseloaded combined cycle units.

The Draft Air Construction/PSD Permit Modification addresses a request by FP&L to allow annual testing of Units 3 and 4 to be conducted at 90 to 100 percent of capacity rather than 95 to 100 percent. The request is consistent with the requirements in the original Air Construction/PSD Permit for Units 3 and 4. The Modification will also recognize a high power mode of operation known as power or steam augmentation. This is a feature included in the original design and actual construction of Units 3 and 4 within the permitted heat input and emission limits.

The DRAFT Title V Operation Permit Revision incorporates the conditions of the Unit 8 Air Construction/PSD Permit as well as the Draft Air Construction Permit Modification.

The Department will issue the Air Construction Permit Modification and the PROPOSED Title V Air Operation Permit Revision and subsequent FINAL Title V Air Operation Permit Revision, in accordance with the conditions of the Draft Air Construction Permit Modification and the DRAFT Title V Air Operation Permit Revision 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 Draft Air Construction Permit Modification issuance action for a period of 14 (fourteen) 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 Air Construction Permit, the Department shall issue a Revised Draft Air Construction Permit and require, if applicable, another Public Notice.

The Department will accept written comments concerning the DRAFT Title V Air Operation Permit Revision for a period of thirty (30) days from the date of publication of this Public Notice. Written comments must be post-marked and all facsimile comments must be received by the close of business (5:00 pm), on or before the end of this 30-day period, by the Department at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 or facsimile (850/922-6979). As part of his or her comments, any person may also request that the Department hold a public meeting on this permitting action. If the Department determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location in the Florida Administrative Weekly (<http://faw.dos.state.fl.us/>) and in a newspaper of general circulation in the area affected by the permitting action. For additional information, contact the Department at the above address or phone number.

If written comments or comments received at a public meeting result in a significant change to the DRAFT Title V Air Operation Permit Revision, the Department shall issue a further revision of the DRAFT Title V Air Operation Permit Revision and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 of the Florida Statutes (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 of

NOTICE TO PUBLISH IN THE NEWSPAPER

Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2242; Fax: 850/245-2303). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of the 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 14 (fourteen) 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 applicable 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 of the Florida Administrative Code (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; 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 petitioner's substantial rights will be affected by the agency determination;
- (c) A statement of how and when the 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 state;
- (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle petitioner to relief;
- (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 of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application(s) have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above. Mediation is not available for this proceeding.

In addition to the above, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit revision. Any petition shall be based only on objections to the permit revision that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

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 32399-2400  
Telephone: 850/488-0114  
Fax: 850/922-6979

Department of Environmental Protection  
Southeast District Office  
400 North Congress Avenue  
West Palm Beach, Florida 33416-5425  
Telephone: 561/681-6600  
Fax: 561/681-6790

The complete project file includes the Statement of Basis, Draft Permits, the application(s), and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, South Permitting Section, at the above address, or call 850/488-0114, for additional information.

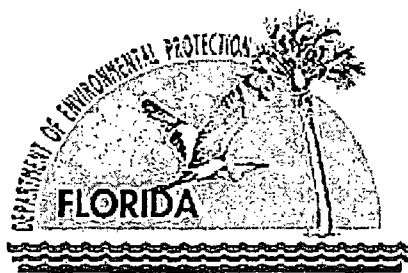
**TECHNICAL EVALUATION  
AND  
PRELIMINARY DETERMINATION**

Florida Power & Light Company  
Martin Power Plant

Martin County

Modifications of Previous PSD Permit Conditions  
Units 3, 4 and 8

Air Construction Permit No. 0850001-016-AC



Florida Department of Environmental Protection  
Division of Air Resource Management  
Bureau of Air Regulation  
Permitting South

December 1, 2006



BACKGROUND

The applicant submitted an application to revise the facility's Title V Operation Permit to include the recently constructed Combined Cycle Unit 8 and to incorporate revisions to be made in a concurrent Air Construction Permit Modification. The requested Air Construction Permit Modification is primarily to establish certain startup, testing, and operational conditions for Martin Power Plant Combined Cycle Units 3, 4 and 8. This Technical Evaluation addresses their requests for a concurrent Air Construction Permit modification.

AIR CONSTRUCTION PERMIT MODIFICATION

Following are the requested changes by issuance of an Air Construction Permit Modification:

- FP&L requests that required annual compliance testing of Combined Cycle Units 3 and 4 be conducted within a range of 90 to 100 percent of the capacity (corrected for ambient conditions) rather than a range of 95 to 100 percent.
- FP&L requests recognition of a high power mode for Combined Cycle Units 3 and 4 known as power or steam augmentation that was included in the original design and construction.
- FP&L requests addition of EPA Test Methods 25, 25A for the determination of VOC emissions and EPA Test Method 7E for the determination of NO<sub>x</sub> concentrations for Units 3 and 4.
- FP&L requests to change the word "limitation" to "curves" in the sentence "to determine compliance with the oil firing heat input limitation" in Units 3 and 4. This was not implemented.
- FP&L requests extension of the allowable excess emissions period from six to eight hours during the "cold" startup of the 470 MW steam turbine-electrical generator (STG) for Unit 8. The single Unit 8 STG operates with the steam raised by the four heat recovery steam generators (HRSGs). FP&L requests extension of startup to allow use of only two combustion turbines to start up the STG. The excess emissions are from low load operation of the CT/HRSG sets as they power and provide steam for the cold STG startup.
- FP&L requests excess emissions for a (1) one-hour duration when switching from natural gas to distillate fuel oil on Unit 8.
- FP&L requests deletion of references to gas-fired heaters since they installed electrical heaters to heat the fuel for Unit 8.
- FP&L requests deletion of references of the two 2,100,000 gallon distillate fuels storage vessels serving Unit 8, as regulated emissions units in the PSD Permit and transferring them to Appendix I, Insignificant Emissions Units in the Title V Operation Permit Revision.
- FP&L requests recognition of two diesel generators added to service combined cycle Unit 8 in the Title V Permit.
- FP&L requests recognition of the installation of 22-cell instead of 18-cell mechanical draft cooling tower serving Unit 8.

PERMIT NO. PSD-FL-146 FOR UNITS 3 AND 4

The following sections address the requested changes to conditions in the original PSD Permit and its subsequent revision applicable to Units 3 and 4.

Annual Testing of Units 3 and 4 at 90-100 percent of capacity

The original AC/PSD Permit issued in 1991 did not specify the rate at which Units 3 and 4 must be tested during annual compliance tests. The applicable regulation required that testing be conducted at capacity which was defined as 90 to 100 percent of the maximum operation rate allowed by the permit per Paragraph 62-297.310(2), F.A.C.

In 1996 the Department, at the request of FP&L, added a condition to the PSD Permit to reflect the Department's December 1995 Guidance DARM-EM-05, "Rate of Operation During Compliance Testing for Combustion Turbines". The guidance defined capacity as 95-100 percent of the manufacturer's rated

heat input to the combustion turbine achievable for the average ambient (or conditioned) air temperature during the test. The guidance also required testing at capacity as re-defined.

The mentioned Guidance was subsequently rescinded. The Department will issue an AC/PSD Permit Modification that reflects the original rule definition of capacity and testing requirements. The exact language is in the attached Draft Air Construction Permit Modification.

The Department will include the wording that marks capacity to ambient or conditioned air. The additional wording accounts for the fact that capacity varies throughout the year with respect to temperature. For example the "Winter Rating" of such units could easily be 15 percent greater than the "Summer Rating". The change will also be reflected by revision of Condition B.3 of the Title V Operation Permit as discussed above.

#### Recognition of Power (Steam) Augmentation on Units 3 and 4

Combined Cycle Units 3 and 4 were permitted in 1991 with enforceable limitations on heat input, NO<sub>x</sub> and CO. The concept of power augmentation was not specifically addressed in the original AC/PSD Permit.

Power augmentation involves the routing of some steam from the HRSG back to the expansion portion of the CT for purpose of additional power production from the electrical generator directly associated with the CT. Normally such steam is routed to the Steam Turbine Generator (STG). In certain applications, some steam is actually routed back to the CT combustors for NO<sub>x</sub> control. In the present case, the CTs have Dry Low NO<sub>x</sub> Combustors (DLN) and, except for rare use of fuel oil, do not require steam injection for NO<sub>x</sub> control.

By letter dated February 1993 (during the construction of Units 3 and 4) FP&L advised the Department: *"With the completion of detailed engineering and shop testing, refinement of the information previously provided to DER as part of the certification process has occurred in two general areas. The first is the development of the peak mode of operation (i.e. power augmentation)."*

The details submitted by FP&L in 1993 and 1994 are included as Attachment II to this Technical Evaluation. During the same time, the Department was in the process of modifying the relevant AC/PSD Permit. Apparently both FP&L and the Department did not at the time consider it necessary to revise the open AC/PSD Permit to recognize power augmentation as a distinct mode of operation.

By letter dated August 2, 1994 FP&L submitted a description of the goals for the Unit 3 and 4 testing program. The manner by which testing would be conducted while practicing power augmentation was described and is given in the previously referenced Attachment II.

It is clear that the unit must comply with the same emission limits during power augmentation as required under the normal mode for natural gas operation. It is also clear that power augmentation is practiced sparingly.

For clarification purposes, the Department will add a provision in the AC/PSD Permit Modification to recognize this mode of operation. The exact language is given in the attached Draft Air Construction Permit Modification. For reference, this mode is already recognized in the current Title V Operation Permit and no changes are required within the present Title V Operation Permit Revision.

#### Additional Approved Test Methods for Combined Cycle Units 3 and 4

Method 7E is an approved test method for determination of NO<sub>x</sub> concentrations. The Department will allow its use in conjunction with other approved EPA Methods to determine both NO<sub>x</sub> concentrations and mass emissions.

Methods 25 and 25A are approved test methods for Total Hydrocarbons. The applicant may use these methods in lieu of the previously approved Method 18 to determine VOC emissions and may, as needed, use certain provisions of Method 18 to subtract non-VOC fractions (e.g. methane) from the values obtained by Methods 25 or 25A.

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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NO<sub>x</sub> emissions data collected during the annual NO<sub>x</sub> continuous monitor RATA required pursuant to 40 CFR 75 may be substituted for the required annual performance test. The new conditions are shown in the attached draft air construction permit modification.

### Testing Conditions Related to Power Augmentation at Units 3 and 4

This permit also specifies that testing is required in the power augmentation mode for any unit that operated more than 400 hours in the power augmentation mode during the previous federal fiscal year. The units have CEMS for NO<sub>x</sub> emissions and the units are subject to the same NO<sub>x</sub> limitations under power augmentation as they are under normal operation. The exact language is shown in the attached Draft Air Construction Permit Modification.

### Compliance with the Oil Firing Heat Input Limitation

FP&L requested that Condition No. 14 of the original PSD Permit (PSD-FL-146) for Units 3 and 4 be modified as follows:

14. To determine compliance with the oil firing heat input ~~limitation~~ curves, the permittee shall maintain daily records of fuel oil consumption and hourly usage for each turbine and heating value for each fuel. All records shall be maintained for a minimum of five (5) years after the date of each record and shall be made available to representatives of the Department upon request.

According to FP&L, "the distillate fuel piping and other subsequent systems were removed and these units are currently not capable of burning distillate fuel oil. Testing on oil was never done as these units have never operated on distillate fuel oil and are currently incapable of doing so."

Condition 14 relates back to Condition 1 of the original PSD Permit that includes limits on heat input as follows:

1. The maximum heat input to each CT shall neither exceed 1966 MMBtu/hr while firing natural gas, nor 1846 MMBtu/hr while firing fuel oil (@40 °F). For coal derived gas firing the maximum heat input to each CT shall not exceed 2100 MMBtu (@75 °F). These heat input limitations are subject to change. Any changes shall be provided at least 90 days before commercial operation for each fuel available to the site which a unit is capable of firing, at which time this condition may be modified to reflect those parameters. Each combined cycle unit's fuel consumption shall be continuously determined and recorded.

The Department does not consider it necessary to make the requested change in Condition 14. Because the units are "currently incapable" of firing fuel oil, the Department believes that enabling this capability will require a specific permit. At that time, conditions similar to No. 1 can be considered and specified in terms of a different heat input limitation or characteristic curve.

At this time, the Department has no information regarding plans to enable fuel oil firing and has not received characteristic heat input/temperature curves. No changes will be made at this time on Condition 14.

### PSD PERMIT FOR UNIT 8 NO. PSD-FL-327

The following sections address the requested changes to conditions in the original PSD Permit and its subsequent revision applicable to Units 3 and 4.

### Cold Start-up of Combined Cycle Unit 8 STG

The Department conducted a full determination of best available control technology (BACT) during the original permitting of Unit 8 in 2003 and required use of inherently clean fuels, installation of DLN combustors and a selective catalytic reduction (SCR) system.

A cold startup of a STG that is part of a four-on-one combined cycle unit is an uncommon event and indicates that there has been a prolonged shutdown of about 1,000 MW of typically baseloaded capacity. A cold STG startup might occur at intervals between one and ten years.

A longer period of excess emissions for the cold startup of the STG provides greater flexibility to the operator in the manner by which different CT/HRSG sets are blended in and out within the allowable excess emissions period. According to the applicant, the longer period allows for use of only two CTs to start up the STG (and HRSGs). This is a lower emitting scenario because less CTs operate in the higher emitting (non DLN) modes.

A two CT start-up with 8-hours of excess emissions versus a three CT start-up with 6-hours of excess emissions allows:

- A modest net reduction in NO<sub>x</sub> mass emissions over the duration of the start-up;
- Greater operational flexibility;
- Simplification of the start-up process; and,
- Has less risk from unintended CT trips associated with blending/unblending operations.

The FP&L analysis is included as Attachment I to this Statement of Basis. The rationale provided is acceptable to the Department. The exact changes to the original language in the PSD Permit for Unit 8 are indicated in the attached Draft Air Construction Permit Modification.

Excess Emissions during Operational Switching from Natural Gas to Fuel Oil on Combined Cycle Unit 8

The Department previously recognized the need for excess emissions considerations for switching from fuel oil to natural gas during operation of the combustion turbines. The Air Construction/PSD Permit for Combined Cycle Unit 8 provides that for fuel oil-to-gas fuel switching, excess emissions shall not exceed one (1) hour in any 24-hour period.

The excess emissions are at least partially caused by the need to reduce load to less than 50 percent of capacity at which level the dry low NO<sub>x</sub>/CO features of the GE 7FA combustion turbines are not fully employed.

Operational switching from natural gas to fuel oil firing can be accomplished without a significant load reduction. However, FP&L requests the Department consider the possibility that FP&L may want to make the switch at low load instead of high load, thus requiring as much time as a fuel oil to natural gas switch. According to FP&L:

*"Although operational switching from gas to oil can be accomplished at higher loads, it does not allow the option of aborting the transfer. At lower loads, GE process control logic allows enough time to perform a pressure check of the fuel nozzles, which will provide us an early indication of transfer issues. The same check can be made at high loads, but without the ability to abort. Combustion instability in a burner can (e.g. a plugged fuel oil nozzle) will cause a combustion issue, resulting in a CT trip requiring subsequent restart. The restart of the CT will result in higher overall NO<sub>x</sub> than the shorter duration excess emissions from a CT load reduction to allow the switch from natural gas to fuel oil with the option of aborting and avoiding a unit trip and subsequent restart."*

The described scenario describes infrequent switches as it is much more economical to operate the units on natural gas than fuel oil. As discussed in a previous section above, Units 3 and 4 have never operated on fuel oil while Unit 8 has that capability. The Department will modify the condition as indicated in the attached Draft Air Construction Permit Modification to allow FP&L to conduct its fuel switches in the manner they have described.

Deletion of References to Gas-fired Heaters

Gas-fired heaters to heat natural gas used by the combustion turbines were not installed. Instead FP&L installed electrical heaters and requested removal of the references to the gas-fired heaters. The Department will remove those references as requested. The changes are shown in the attached Draft Air Construction Permit Modification.

Final Design and as-Constructed Description of the Mechanical Cooling Tower

FP&L requested that the PSD Permit be modified to reflect that the as-constructed cooling tower has 22 instead of 18 cells. The changes are shown in the attached Draft Air Construction Permit Modification.

40CFR60, Subpart Kb Requirements

FP&L requested removal of references to the two 2,100,000 gallon distillate fuel storage vessels as regulated emissions units. FP&L requested transferring them to Appendix I, Insignificant Emissions Units.

The Department agrees that these large storage vessels are no longer subject to 40 CFR 60, NSPS Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.

Section 60.110b(c) exempts all vessels with greater than 151 m<sup>3</sup> (40,000 gallons) storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa). Information collected by the Department indicates that the true vapor pressure of typical low sulfur (less than 0.05% S) is less than 1 kPa.

The Department will clarify non-applicability of Subpart Kb. However the Department will keep the emissions unit designation. The tanks were part of a project that was subject to PSD for VOC. The use of 0.05% sulfur fuel is part of the BACT requirement. The condition will be modified consistent with some of the more recent permits (such as West County) that are not subject to Subpart Kb, but are subject to PSD for VOC and the maintenance of records is required. The changes are indicated in the attached Draft Air Construction Permit Modification.

## Attachment I

### Cold Start-up of the Steam Turbine/Generator on a Four-on-One Combined Cycle

The following scenario is specific to Manatee Unit 3, but also applies to Martin Unit 8 and Turkey Point Unit 5. All three units have "four-on-one" combined cycles that consist of: 4 General Electric 7FA combustion turbine-electrical generators (CTs); four duct-fired heat recovery steam generators (HRSGs); and a single steam turbine-electrical generator (STG).

Although a cold steam start-up is a complex procedure done infrequently, actual operating experience now shows that the six hours originally permitted by the PSD and AC permits is inadequate to successfully, and smoothly, execute a cold Steam Turbine start. The Steam Turbine Start Up process has CTs sequentially started so that the respective HRSG is able to provide a sufficient quantity of steam at the appropriate temperature, pressure, and flow to maintain accurate Steam Turbine speed control and warm the STG slowly. This requires that the CT's be run at low loads, during which time the full Dry Low NO<sub>x</sub> (DLN) features are not fully enabled.

Typically, one CT is started ahead of the others, and a second CT is started somewhat later. When the steam conditions from the second CT/HRSG match the pressure and temperature of the first HRSG, it is "blended" by means of valving operations with the first CT/HRSG steam and the start-up progresses. Later, a third CT/HRSG combination is started, warmed up, and "blended". This is done in order to "unblend" the first CT/HRSG as it approaches the 6-hour excess emissions window. That is, the steam from the first CT's HRSG is routed by means of valving operations from the Main Steam Turbine Header to the condenser. The first CT's load is then ramped up to a point where the SCR can be placed into service and render the CT in compliance with its normally permitted emissions. Afterward, it is "re-blended" with the other two starting units.

This process of "unblending" one CT while ensuring the other CT's have been sequentially started up, and in the right configuration to provide steam of adequate temperature, pressure, and quantity to be "blended" to the steam turbine has proven to be challenging. During the "unblending" and "blending" valving operations, CT HRSG's temperatures, pressure and drum levels become very difficult to control.

Any HRSG instability can trip the CT's which would require a new restart and potentially more excess emissions, either from a restart of the CTs, or more typically, the start-up must be postponed until the next calendar day as insufficient start-up time remains in the current 24-hour period. Postponing the start-up until the next day necessitates that the needed generation is supplied from elsewhere. In the case of Manatee Unit 3 (or Martin Unit 8 or Turkey Point Unit 5), alternate residual fuel oil-fired units are greater emitters.

Extending the 6 hour emission limit to 8 hours would significantly reduce the number of "unblending/blending" operations, and provide more certainty of a successful timely start using as few as two CTs. It also will allow more operational flexibility in cases where the load from 3 or 4 CT's is not needed, or when 2 CT's are out of service for routine maintenance.

Manatee Unit 3, for example, conducted a cold start-up of the STG on June 12, 2005. Three CTs were used during the start-up. To remain within the 6-hour excess emissions window, CT-A was unblended at the end of its 6-hour period, ramped up in firing rate, and the SCR placed into service. The CEM emissions data in Table 1 below is from that start-up. The "Additional 2 hours" of emissions data is projected from the actual emissions of the last 2 hours (hours 5 and 6) of CT-A and CT-C operation.

A two CT start-up with 8-hours of excess emissions versus a three CT start-up with 6-hours of excess emissions allows: greater operational flexibility; a simplified start-up process; less risk from unintended CT trips associated with blending/unblending operations; and a modest net reduction in NO<sub>x</sub> mass emissions over the duration of the start-up.

**TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION**

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Table 1. PMT UNIT 3 COLD TURBINE S/U JUNE 12, 2005. NOx emissions in pounds from CEM data

	CT-A	CT-B	CT-C	A+C	A+B+C
First 6 hours	554	509	574		
Additional 2 hours *Projected from hours 5 and 6 actual emissions	209*		230*		
Projected total for 2 CTs @ 8 hours each (CTs A & C)	763		804	1,567	
Total for 3 CTs @ 6 hours each	554	509	574		1,637

Source: FP&L

Attachment II

Power Augmentation on Combined Cycle Units 3 and 4 (2/1993 and 8/1994)

Power Augmentation

Units 3 & 4 at Martin utilize advanced combustion turbines (CT's). The term "advanced" refers to a very high firing temperature design. The higher firing temperature requires use of exotic materials coupled with very sophisticated internal cooling techniques. This design approach results in a machine which operates very close to its true maximum capability in normal operation (e.g., base load).

Conventional power generation combustion turbines have two ratings, base and peak loads. Conventional units operate at a base load firing temperature of 1900° F to 2100° F and have reasonable design margins. Peak load is a temporary operating mode which is accomplished by simply raising the firing temperature by 50° F to 100° F in the conventional combustion turbine.

Peak load operation for Units 3 & 4 cannot be accomplished by simply raising the firing temperature since these units operate at 2350° F. To obtain a peak load rating for these units, steam is injected into the combustion turbine at temperatures lower than the combustion gases.

The lower temperature steam allows overfiring of the CT without exceeding 2350° F. Furthermore, the additional mass flow contributed by the steam produces more power from the turbine. GE refers to this peaking mode of operation as "power augmentation". When operating in this mode, emission limits will remain within the already permitted levels.

Operating in this mode has economic and environmental benefits. Economically, the additional power supply is at a very desirable incremental heat rate, thus lowering fuel costs. Environmentally, the use of this peaking mode displaces other higher emission units in the FPL system. Therefore, the benefits accrue to both the environment and FPL customers.

Martin Units 3 & 4 are designed to use the power augmentation mode sparingly. The auxiliary equipment necessary to support power augmentation is limited in capacity. For example, the water treatment plant and demineralizer can support continuous power augmentation for only 48 hours at a time. On a consistent daily use basis, Units 3 & 4 would only be able to run two hours per day in the power augmentation mode. FPL expects to use this peak mode of operation approximately 228 hours per year. This estimate is based on several assumptions that cannot be verified without actual plant operational data and yearly weather patterns.

**III. Steam Power Augmentation Testing of CT operation for both physical performance and compliance with permitted emission limits for NO<sub>x</sub>, CO and VOC will be conducted with steam augmentation occurring from zero up to maximum steam injection levels. Based on these operation tests, adjustments will be made to the control constants and fuel split schedules as discussed above to maintain emissions at permitted levels and to control combustor stability and dynamics.**



Month, day, 2007

*Electronically Sent – Received Receipt Requested*

Mr. Craig Arcari, Plant General Manager  
Martin Power Plant  
Florida Power & Light Company  
700 Universe Boulevard  
Juno Beach, Florida 33408

Re: DEP File No. 0850001-016-AC  
PSD-FL-146C and PSD-FL-327B  
Combined Cycle Units 3, 4 and 8

Dear Mr. Arcari:

The Florida Department of Environmental Protection (the Department) reviewed your application to make some minor modifications to the PSD Permits related to Combined Cycle Units 3, 4 and 8 in conjunction with issuance of a Title V Operation Permit Renewal that incorporates the recently constructed Unit 8. The changes primarily address startup, testing, and as-built equipment descriptions.

The PSD Permit for Unit 8 has not yet expired. Therefore the changes requested will be addressed as an Air Construction Permit Modification and will also address the requests related to Units 3 and 4 to make them enforceable so they can be included in the requested Title V Operation Permit Renewal.

The Department addressed each request in its Technical Evaluation dated December 1, 2006. Following are the new conditions and changes to previous conditions applicable to Units 3, 4 and 8.

NEW CONDITIONS APPLICABLE TO COMBINED CYCLE UNITS 3 AND 4

The following condition supersedes Specific Condition No. 1 of PSD-FL-146 as previously modified on September 6, 1996.

1. Permitted Capacity. The maximum heat input to each Combustion Turbine (CT) shall neither exceed 1966 mmBtu/hr while firing natural gas, nor 1846 mmBtu/hr while firing fuel oil @ 40 degrees F. These heat input limitations are subject to change. Any changes shall be provided at least 90 days before commercial operation for each fuel available to the site which a unit is capable of firing, at which time this condition may be modified to reflect those parameters. Each combined cycle's fuel consumption shall be continuously determined and recorded.

Operation During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. Permitted capacity and operating data may be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department.

If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

If tested at less than capacity, the entire heat input versus inlet temperature curves will be adjusted by the increment equal to the difference between the design heat input value and 110 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.

[Rule 62-4.160(2), Rule 62-297.310(2), and Rule 62-210.200(PTE), F.A.C.; PSD-FL-146 and PSD-FL-146A (0850001-002 and 0850001-003-AC issued 9/6/96); Specific Condition No. 1. Rescission of Guidance DARM-EM-05; and Applicant Request dated April 5, 2006, Permit No. 0850001-016-AC.]

The following condition supersedes Specific Condition No. 10 of PSD-FL-146 as previously modified on September 6, 1996.

10. Compliance Test Methods: Tests shall be conducted using EPA reference methods, or equivalent, in accordance with 40 CFR 60 Appendix A.

Pollutant	EPA Reference Method	Initial testing		Annual testing	
		Gas	Oil	Gas	Oil
Particulate Matter (PM)	5 or 17		X		X
Sulfuric Acid Mist (SAM)	8		X		
Visible Emissions (VE)	9	X	X	X	X
Carbon Monoxide (CO)	10	X	X	X	X
Nitrogen Oxides (NOx)	7E, 20	X	X	X	X
Volatile Organic Compounds	18, 25 or 25A**	X	X		
	Test Method				
Lead (Pb)	EMTIC Test Method, or Method 7090, or 7091*		X		
Beryllium (Be)	EMTIC Test Method, or Method 104, or Method 7090, or 7091*		X		
Sulfur content	ASTM D 2880-96		X		X
	ASTM D 1072-90(94) E-1, ASTM D 3031-81(86), ASTM D 4084-94, or ASTM D 3246-92	X		X	
Mercury (Hg)	40 CFR 61, Appendix B EPA Reference Method 101*	X	X		

\* Method 3040 sample extraction shall be used as described in the EPA solid waste regulations SW 846.

\*\* EPA Method 18 may be conducted to account for the non-regulated methane fraction of the measured VOC emissions.

The stack test for each turbine shall be performed within 10% of the maximum heat rate input for the tested operating temperature. See Specific Condition No.1 of PSD-FL-146C for utilization of ambient temperature versus heat input curves during compliance testing.

Initial (I) compliance tests shall be performed on each Combustion Turbine using both fuels (based on information provided by the applicant, initial testing using distillate oil has not been done). It is not necessary to plan the firing of a fuel solely to complete the initial compliance test; instead, the initial test may be postponed until such time as the untested fuel is ready for service.

Annual (A) compliance tests shall be conducted for each combustion turbine to demonstrate compliance with the permitted emissions standards for normal gas firing, gas firing with power augmentation, and backup distillate oil firing. CO and NO<sub>x</sub> performance tests shall be conducted concurrently. If conducted at permitted capacity, NO<sub>x</sub> emissions data collected during the annual NO<sub>x</sub> continuous monitor RATA required pursuant to 40 CFR 75 may be substituted for the required annual performance test. Tests required on an annual basis shall be conducted at least once during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>).

For each combustion turbine that fires distillate oil for less than 400 hours during the previous federal fiscal year, the annual performance tests when firing distillate oil for the current federal fiscal year of operation are not required. Combustion turbines firing more than 400 hours on oil will also be required to demonstrate compliance with PM standards.

For each combustion turbine that operates with power augmentation for less than 400 hours during the previous federal fiscal year, the annual performance tests when operating with power augmentation for the current federal fiscal year of operation are not required. During power augmentation each unit shall comply with the emissions limits stated in Specific Condition No. 4 of PSD-FL-146.

[40 CFR Appendix A; Rule 62-204.800, F.A.C. and Rule 62-297.310(7)(a)4., F.A.C.; PSD-FL-146, Specific Condition No. 10; and applicant request letter dated April 5, 2006.]

#### MODIFICATIONS OF AIR CONSTRUCTION/PSD PERMIT 327 - COMBINED CYCLE UNIT 8

Specific conditions listed in Section III, Part A, No. 3, and No. 16, the entire Part B, and Part D, No. 1 are hereby modified; new Specific Condition No. 5 is added to Part D as shown below. Double-underline denotes additions and ~~strikethrough~~ indicates deletions.

#### Section III, Part A - Combined Cycle Gas Turbines (EU 011, 012, 017 and 018)

Specific Condition No. 3 is modified as follows:

Gas Turbines: The permittee is authorized to install, tune, operate, and maintain four General Electric Model PG7241FA gas turbine-electrical generator sets each with a generating capacity of 170 MW. Each gas turbine shall include a modern ~~the~~ Speedtronic™ automated gas turbine control system and have dual-fuel capability. Ancillary equipment includes an inlet air filtration system, an evaporative inlet air-cooling system, and a bypass stack for simple cycle operation. The gas turbines will utilize the "hot nozzle" DLN combustors, ~~which require natural gas to be preheated to approximately 290° F before combustion to increase overall unit efficiency.~~ Gas-fired Electric fuel heaters will preheat the natural gas during simple cycle operation and during startup to combined cycle operation. For full combined cycle operation, feedwater heat exchangers will preheat the natural gas.

Specific Condition No. 16.a is modified as follows:

*Steam Turbine/HRSG System Cold Startup*: For cold startup of the steam turbine system, excess emissions from any gas turbine/HRSG system shall not exceed ~~six~~ eight hours in any 24-hour period. Cold startup of the steam turbine system shall be completed within twelve hours. A cold "startup of the steam turbine system" is defined as startup of the 4-on-1 combined cycle system following a shutdown of the steam turbine lasting at least 48 hours. *{Permitting Note: During a cold startup of the steam turbine system, each gas turbine/HRSG system is sequentially brought on line at low load to gradually increase the temperature of the steam-electrical turbine and prevent thermal metal fatigue. Note that shutdowns and documented malfunctions are separately regulated in accordance with the requirements of this condition.}*

Specific Condition No. 16.d is modified as follows:

Fuel Switching: For oil to gas fuel switching (oil to gas or gas to oil), excess emissions shall not exceed one (1) hour in any 24-hour period.

The rest of Specific Condition 16 is unchanged.

Section III, Part B. Gas-Fired Fuel Heaters (EU 013)

This Part is deleted since FP&L installed Electrical Heaters to heat the fuel.

Section III, Part C. Cooling Tower (EU 020)

Specific Condition No. 1 is modified as follows:

Cooling Tower: The permittee installed one new 22-cell mechanical draft cooling tower with the following design characteristics: a circulating water flow rate of 310,000 gpm; design hot/cold water temperatures of 104° F/90° F; a design air flow rate of 1,386,055 per cell; a liquid-to-gas air flow ratio of 1.4; and drift eliminators with a drift rate of no more than 0.001 percent. ~~The permittee shall submit the final design details within 60 days of selecting the vendor.~~ [Application; Design]

(No other changes were made to Section III, Part C)

Section III, Part D. Distillate Oil Storage Tank (EU 014)

Specific Condition No. 1 is modified as follows:

NSPS Subpart Kb Applicability: The distillate oil tanks are not subject to Subpart Kb, which applies to any storage tank with a capacity greater than or equal to 10,300 gallons (40 cubic meters) that is used to store volatile organic liquids for which construction, reconstruction, or modification is commenced after July 23, 1984. Tanks with a capacity greater than or equal to 40,000 gallons (151 cubic meters) storing a liquid with a maximum true vapor pressure less than 3.5 kPa are exempt from the General Provisions (40 CFR 60, Subpart A) and from the provisions of NSPS Subpart Kb. ~~except for the record keeping requirements specified below.~~

[40 CFR 60.110b(a) and (c) and Rule 62-204.800(7)(b), F.A.C.]

A new condition, Specific Condition No. 5, is added to Section III, Part D as follows:

Fuel Oil Records: The permittee shall keep readily accessible records showing the maximum true vapor pressure of the stored liquid. The maximum true vapor pressure shall be less than 3.5 kPa. Compliance with this condition may be demonstrated by using the information from the respective MSDS for the low or ultralow sulfur fuel oil stored in the tanks.

[62-4.070(3) F.A.C.]

{Permitting Note: An evaluation of several Material Safety Data Sheets (MSDS) by the Department demonstrated that the vapor pressure is much less than 3.5 kPa for low sulfur fuel oil and for ultralow sulfur fuel oil.}

(No other changes were made to Section III, Part D)

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. Any party to this permitting decision (order) has the right to seek judicial review of it under Section 120.68 of the Florida Statutes, by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, 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 must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

Joseph Kahn, Director  
Division of Air Resource Management

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this PERMIT MODIFICATION was sent electronically (with Received Receipt) before the close of business on \_\_\_\_\_ to the person(s) listed below:

- Craig Arcari, Florida Power & Light Company (Craig\_Arcari@fpl.com)
- John Hampp, Florida Power & Light Company (John\_Hampp@fpl.com)
- Darrel Graziani, P.E., Southeast District Office (Darrel.Graziani@dep.state.fl.us)
- Jim Little, U.S. EPA, Region 4 (Little.James@epamail.epa.com)
- Kennard F. Kosky, P.E., Golder Associates, Inc. (kkosky@golder.com)
- Mike Halpin, P.E., Power Plant Siting Office (Mike.Halpin@dep.state.fl.us)

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.

\_\_\_\_\_  
(Clerk)

\_\_\_\_\_  
(Date)