Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

Mr. Brad Williams
Florida Power & Light Company (FPL)
700 Universe Blvd.
Juno Beach, Florida 33408

Re: Air Construction Permit No. 0850001-026-AC
PSD-FL-327E
FPL Martin Power Plant Unit 8
Combustion Turbine Improvements

Dear Mr. Williams:

On August 1, 2011, you submitted an application requesting authorization to improve the performance of the four General Electric (GE) Model 7FA.03 combustion turbine-electrical generators (CT) associated with Unit 8 at the FPL Martin Plant. The project involves the replacement of certain standard components on the four GE Model 7FA.03 CT with more advanced parts that are characteristic of the newer CT known as the GE Model 7FA.04. This facility is located in Martin County at 21900 Southwest Warfield Boulevard, Indiantown, Florida. Enclosed are the following documents:

- The Technical Evaluation and Preliminary Determination summarizes the Permitting Authority's technical review of the application and provides the rationale for making the preliminary determination to issue a Draft Permit.
- The proposed Draft Permit includes the specific conditions that regulate the emissions units covered by the proposed project.
- The Written Notice of Intent to Issue Air Permit provides important information regarding: the Permitting Authority's intent to issue an air permit for the proposed project; the requirements for publishing a Public Notice of the Permitting Authority's intent to issue an air permit; the procedures for submitting comments on the Draft Permit; the process for filing a petition for an administrative hearing; and the availability of mediation.
- The Public Notice of Intent to Issue Air Permit is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project.

If you have any questions, please contact Robert Wong at 850-717-9036 or Al Linero at 850-717-9076.

Sincerely,

8-23-11

Jeff Koerner, Administrator
Office of Permitting and Compliance

Enclosures

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

In the Matter of an
Application for Air Permit by:

Florida Power & Light Company
700 Universe Blvd
Juno Beach, FL 33408

Authorized Representative:
Mr. Brad Williams, Plant General Manager

Draft Permit No. 0850001-026-AC
PSD-FL-327E
Martin Power Plant Unit 8
Combustion Turbine Improvements
Martin County, Florida

Facility Location: Florida Power & Light Company (FPL) operates the Martin Power Plant, which is located 21900 Southwest Warfield Boulevard in Martin County, Florida.

Project: The applicant proposes to improve the four combustion turbine-electric generators (CT) associated with Unit 8 during an otherwise routine maintenance outage. The changes will increase the efficiency and power output of the CT by replacing certain hot gas path components in the General Electric (GE) Model 7FA.03 CT with those of the newer GE Model 7FA.04 CT. Specifically, the improvements include the installation of new hot gas path components such as combustion liners and flow sleeves to increase firing temperature. Details of the project are provided in the application and the enclosed Technical Evaluation and Preliminary Determination.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Office of Permitting and Compliance is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/717-9000.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address or phone number listed above.

Notice of Intent to Issue Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Public Notice: Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Permit (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 by this project. The newspaper used must meet 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 Permitting Authority at above address or phone number. Pursuant to Rule 62-110.106(5) and (9),

F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within 7 days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of 14 days from the date of publication of the Public Notice. Written comments must be postmarked by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 14-day period. If written comments received result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: 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 with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this Written Notice of Intent to Issue Air Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the attached Public Notice or within 14 days of receipt of this Written Notice of Intent to Issue Air Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 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 (in a proceeding initiated by another party) 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 Permitting Authority'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 when and how each petitioner received notice of the agency action or proposed decision; (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, 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 including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the 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 Permitting Authority'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 Permitting Authority's final action may be different from the position taken by it in this Written Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

Executed in Tallahassee, Florida.

Jeff Koerner, Administrator
Office of Permitting and Compliance

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Written Notice of Intent to Issue Air Permit package (including the Public Notice, the Technical Evaluation and Preliminary Determination, and the Draft Permit) was sent by electronic mail with received receipt requested before the close of business on 8-23-11 to the persons listed below.

Mr. Brad Williams, FPL: david.williams@fpl.com
Mr. Kevin Washington, FPL: kevin.washington@fpl.com
Mr. Willie Welch, FPL: willie_welch@fpl.com
Mr. Kennard Kosky, P.E., Golder Associates: ken_kosky@golder.com
Mr. Lennon Anderson, DEP Southeast District: lennon.anderson@dep.state.fl.us
Ms. Heather Abrams, EPA Region 4: abrams.heather@epa.gov
Ms. Lynn Scearce, DEP OPC Reading File: lynn.scearce@dep.state.fl.us
Ms. Barbara Friday, DEP PP Reading File: barbara.friday@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. Friday 8-23-11
(Clerk) (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection
Division of Air Resource Management, Office of Permitting and Compliance
DEP File No. 0850001-026-AC (PSD-FL-327E)
Florida Power & Light Company
Martin Power Plant Unit 8
Martin County, Florida

Applicant: The applicant for this project is Florida Power & Light Company (FPL). The applicant's authorized representative and mailing address is: Mr. Brad Williams, Martin Plant General Manager, FPL, 700 Universe Boulevard, Juno Beach, Florida 33408.

Facility Location: FPL operates the Martin Power Plant, which is located 21900 Southwest Warfield Boulevard in Martin County, Florida.

Project: Unit 8 is a nominal 1,150 megawatts natural gas-fueled combined cycle unit including four General Electric (GE) Model 7FA.03 combustion turbine-electric generators (CT), four supplementary-fired heat recovery steam generators (HRSG) and a single steam turbine-electric generator. The applicant proposes to improve the four CT associated with Unit 8 during an otherwise routine maintenance outage. The changes will increase the efficiency and power output of the CT by replacing certain hot gas path components in the GE Model 7FA.03 CT with those of the newer GE Model 7FA.04 CT. Specifically, the improvements include the installation of improved combustion liners and flow sleeves to increase firing temperature. Details of the project are provided in the application and the Technical Evaluation and Preliminary Determination available at the web link indicated further below.

The project will result in an increase in permitted fuel heat input to each CT from 1,600 to 1,660 million BTU per hour (mmBtu/hr), lower heating value (LHV), at a compressor air inlet temperature of 59 degrees Fahrenheit (°F) when burning natural gas and from 1,811 to 1,885 mmBtu/hr (LHV, 59°F) when burning backup fuel oil. Any increases in annual emissions will be less than the respective significant emission rates established in Rule 62-210.200, Florida Administrative Code (F.A.C.). A review for the Prevention of Significant Deterioration (PSD) and a new Best Available Control Technology (BACT) determination were not required pursuant to Rule 62-212.400, F.A.C.

There will be no change in the previous BACT determinations conducted for Unit 8 in 2003. Unit 8 uses inherently clean fuels and is subject to nitrogen oxides (NO_X) concentration limits of 2.5 and 10 parts per million by volume, dry at 15% oxygen when firing natural gas and fuel oil, respectively. The NO_X emissions are controlled by an ammonia-based selective catalytic reduction system. The previous BACT determination also established stringent limits for emissions of carbon monoxide, particulate matter, volatile organic compounds, sulfur dioxide and sulfuric acid mist.

There may or may not be a small increase in short-term mass emission rates of NO_X, which will be determined by comparing emissions before and after the project in accordance with 40 Code of Federal Regulation, Part 60 (40 CFR 60), Appendix C – Determination of Emission Rate Change. If short-term mass emission rate increases occur, then Unit 8 will be subject to the requirements of 40 CFR 60, Subpart KKKK - Standards of Performance for Stationary Combustion Turbines. The emission limits given therein are less stringent than those already applicable to Unit 8 pursuant to the earlier BACT determination (which will remain in effect).

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Office of Permitting and Compliance is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/717-9000.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111,

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address and phone number listed above. In addition, electronic copies of these documents are available by entering 0850001-026-AC in the permit number panel at the following web site: http://appprod.dep.state.fl.us/air/emission/apds/default.asp .

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of 14 days from the date of publication of the Public Notice. Written comments must be postmarked by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 14-day period. If written comments received result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: 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 with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within 14 days of publication of this Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 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 (in a proceeding initiated by another party) 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 Permitting Authority'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 rights will be affected by the agency determination; (c) A statement of when and how the petitioner received notice of the agency action or proposed decision; (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, 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 including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the 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 Permitting Authority'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 Permitting Authority's final action may be different from the position taken by it in this Public Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available for this proceeding.

(Public Notice to be Published in the Newspaper)

TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

Florida Power and Light Company
700 Universe Blvd.
Juno Beach, Florida 33408

Martin Power Plant

PROJECT

Project No. 0850001-026-AC (PSD-FL-327E)
Application for Minor Source Air Construction Permit

Unit 8 Combustion Turbine Improvements

Martin County, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resource Management
Office of Permitting and Compliance
2600 Blair Stone Road, MS#5505
Tallahassee, Florida 32399-2400

August 23, 2011

1. GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of this permit.

Facility Description and Location

The Florida Power & Light Company (FPL) Martin Power Plant is an existing stationary source, which is categorized under Standard Industrial Classification Code No. 4911. The Martin Power Plant is located in Martin County at 21900 Southwest Warfield Boulevard in Indiantown, Florida. The UTM coordinates of the existing facility are Zone 17, 542.68 km East, and 2992.65 km North.

The facility consists of: two conventional residual fuel oil and natural gas-fired fossil fuel steam generators (Units 1 and 2); three natural gas and distillate fuel oil-fired combined cycle units (Units 3, 4 and 8); a solar thermal facility and ancillary equipment including an auxiliary boiler, two diesel generators, two distillate storage tanks, and a mechanical draft cooling tower.

The left side of Figure 1 is an aerial photograph of the combined cycle units and the solar thermal facility. The older Units 1 and 2 are immediately to the north but not visible in the photograph. The right side of Figure 1 indicates the location of the Martin Power Plant near the eastern shore of Lake Okeechobee.

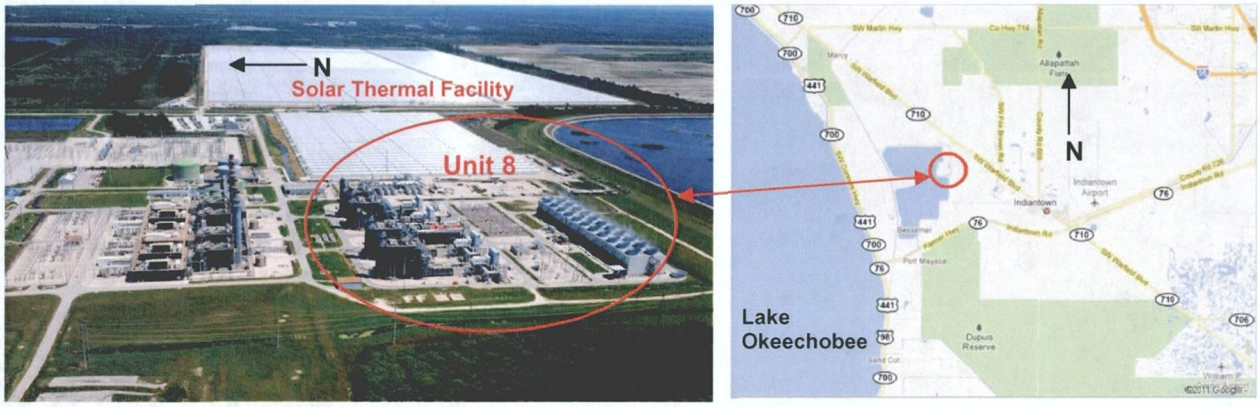

Figure 1. Aerial View of the FPL Martin Plant, Location near Indiantown and Lake Okeechobee.

This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to state and federal Ambient Air Quality Standards (AAQS).

Facility (i.e. Entire Martin Power Plant) Regulatory Categories

- The facility is a major source of Hazardous Air Pollutants (HAPs).
- The facility operates units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Description of Unit 8

The project involves Unit 8, which is a nominal 1,150 megawatts (MW) combined cycle unit consisting of: four General Electric (GE) Model 7FA.03[1] combustion turbine-electric generators (CT) turbines, each nominally rated at 170 MW; four supplementary fired heat recovery steam generators (HRSG), each with a duct burner rated at 495 million British thermal units per hour (mmBtu/hr) on a lower heating value (LHV) basis; and a single nominal 470 MW steam turbine-electric generator (STG). Unit 8 was permitted in 2003 in accordance with the PSD rule and a best available control technology (BACT) determination was conducted. Unit 8 started up in 2005.

Unit 8 also includes an automated control system, inlet air filtration systems, evaporative inlet air cooling systems and associated support equipment. Unit 8 also receives steam from the solar thermal facility when adequate sunlight is available, thus reducing fossil fuel use (e.g. there is less need to operate duct burners). Figure 2 is a picture of Unit 8 (three of four stacks are visible) and part of the solar array.

Figure 2. Unit 8 Inlet Filters on far Left. CT in the Middle. HRSG and Stacks on Right.

[1] GE Model 7FA.03 was previously known as GE Model PG7241FA.

Emissions of carbon monoxide (CO), particulate matter (PM/PM_{10}), sulfur dioxide (SO_2), and volatile organic compounds (VOC) are minimized by the efficient combustion of these inherently clean fuels. Dry Low NO_X (DLN) combustion technology during gas-firing and water injection during oil-firing reduce NO_X emissions during simple cycle operation. Selective catalytic reduction (SCR) systems in combination with the DLN or water injection further reduce nitrogen oxide (NO_X) emissions during combined cycle operations.

Project Description

The left hand side of Figure 3 is a factory picture of an earlier version of the GE CT similar to the prime movers located within Unit 8. The right hand side of the figure is a cutaway diagram of a more recent version showing the 14-stage compressor, the 14 combustors cans oriented along the circumference of the mid-section and the three-stage rotor (expansion) section.

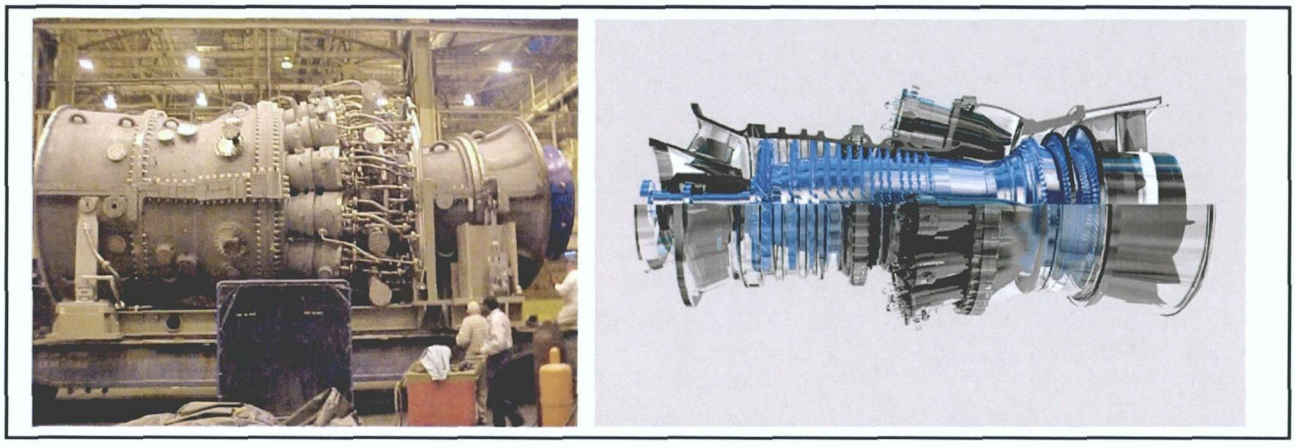

Figure 3. Factory Photo of an earlier GE 7FA and Internal View of a more recent GE 7FA.

FPL proposes to upgrade the four CT during an otherwise routine maintenance outage. The changes will increase the efficiency and power output of each CT by replacing new hot gas path components with those characteristic of the more recent GE Model 7FA.04 CT to increase firing temperature. The components include combustion liners and flow sleeves. New control software will be installed.

Below are photos from a similar project of a CT undergoing similar modifications. The left hand side of Figure 4 is a photo of the combustion section and the three-stage rotor (expansion) section with the upper casings removed and combustors removed.

Figure 4. Internal Photo of GE 7FA with Combustors Removed. Details of Rotor Section.

The photo on the right hand side of the figure shows further details of the hot gas path. The hot combustion gases pass from left to right through the 1st stage nozzle and then the 1st stage blades and buckets, 2nd stage nozzle and blades and finally the 3rd stage nozzle and blades. The blades, seen as the three vertical rings in the picture, are attached to the rotor and spin as the gas expands, thus providing thrust to drive the compressor section and an attached direct-drive electrical generator.

The nozzles, of which only one per stage is visible (others removed) are stationary and fixed to the casing. The proposed project will change the materials, internal cooling passages, and sealing of some of these these components.

The photo on the left hand side of Figure 5 shows 14 liners (per CT), each of which is installed immediately downstream of the six fuel nozzles located within each combustor. These channel the hot gas to the rotor section. The photo on the right hand side of the figure shows 14 flow sleeves (one per liner). These direct compressor discharge air around the liners to keep them cool. The liner and flow sleeve combination will be modified to reduce resistance to air flow and improve efficiency.

Figure 5. Replacement Combustor Liners and Flow Sleeves (14 Sets/CT) Planned for Unit 8.

The project will result in an increase in permitted fuel heat input to each CT from 1,600 to 1,660 mmBtu/hr, lower heating value (LHV), at a compressor air inlet temperature of 59 degrees fahrenheit (°F) when burning natural gas and from 1,811 to 1,885 mmBtu/hr (LHV, 59°F) when burning backup fuel oil.

As discussed further below, any increases in annual emissions will be less than the respective significant emission rates (SER) established in Rule 62-210.200(Definitions), Florida Administrative Code (F.A.C.). A review for the Prevention of Significant Deterioration (PSD) and a new Best Available Control Technology (BACT) determination were not required pursuant to Rule 62-212.400, F.A.C.

There will be no change in the previous BACT determinations conducted for Unit 8 in 2003. Unit 8 uses inherently clean fuels and is subject to NO_X concentration limits of 2.5 and 10 parts per million by volume, dry at 15 percent (%) oxygen (ppmvd) when firing natural gas and fuel oil, respectively. The NO_X emissions are controlled by an ammonia-based SCR system.

Processing Schedule

August 01, 2011 Received the application for a minor source air pollution construction permit.

August 23, 2011 Distributed Intent to Issue Air Permit

2. PSD APPLICABILITY

General PSD Applicability

For areas currently in attainment with the state and federal AAQS or areas otherwise designated as unclassifiable, the Department regulates major stationary sources of air pollution in accordance with Florida's PSD preconstruction review program as defined in Rule 62-212.400, F.A.C. Under preconstruction review, the Department first must determine if a project is subject to the PSD requirements ("PSD applicability review") and, if so, must conduct a PSD preconstruction review. A PSD applicability review is required for projects at new and existing major stationary sources. In addition, proposed projects at existing minor sources are subject to a PSD applicability review to determine whether potential emissions *from the proposed project itself* will exceed the PSD major stationary source thresholds. A facility is considered a "major stationary source" with respect to PSD if it emits or has the potential to emit:

- 5 tons per year (TPY) or more of lead;
- 250 TPY or more of any regulated air pollutant; or
- 100 TPY or more of any regulated air pollutant and the facility belongs to one of 28 PSD-major facility categories listed at Rule 62-210.200 (Definitions), F.A.C., including fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input.

The rules cited are available at the following links: Link to 62-210, F.A.C. and Link to 62-212, F.A.C.

PSD pollutants include: CO; NO_X; SO_2; PM; PM_{10}; VOC; lead (Pb); Fluorides (F); sulfuric acid mist (SAM); total reduced sulfur (TRS), including hydrogen sulfide (H_2S); and mercury (Hg).

For major stationary sources, PSD applicability is based on the previously mentioned SER as defined in Rule 62-210.200 (Definitions), F.A.C. Emissions of PSD pollutants from the project exceeding these SER are considered "significant" and BACT must be employed to minimize emissions of each PSD pollutant. Refer to Table 1.

Table 1. List of SER by PSD-Pollutant. [1,4,5]

Pollutant	SER (TPY)	Pollutant	SER (TPY)
CO	100	NO_X	40
PM/PM_{10} [2]	25/15	Ozone (VOC) [3]	40
Ozone (NO_X) [3]	40	SAM	7
SO_2	40	F	3
Pb	0.6	TRS	10
H_2S	10	Hg	0.1

1. Excluding those defined exclusively for municipal waste combustors and municipal solid waste landfills.
2. PM with a diameter less than 2.5 micrometers ($PM_{2.5}$) is also a PSD pollutant, but an SER has not yet been defined in the Department's rules.
3. Ozone (O_3) is regulated by its precursors (VOC and NO_X).
4. There is a federal SER of 75,000 TPY for Greenhouse Gases (GHG) as carbon dioxide (CO_2) equivalent (CO_2e) that has not been incorporated into Department rules.
5. SER also means any emissions rate or any net emissions increase associated with a major stationary source or major modification which would construct within 10 kilometers of a Class I area and have an impact on such area equal to or greater than 1 $\mu g/m^3$, 24-hour average.

Although a facility may be "major" for only one PSD pollutant, a project must include BACT controls for any PSD pollutant that exceeds the corresponding SER.

PSD Applicability for Project

The PSD requirements of Rule 62-212.400(4) through (12), F.A.C., apply to the construction of any new major stationary source or the major modification of any existing major stationary source. A significant emissions increase of a PSD pollutant (and thus a major modification) will occur if the difference (or the sum of the differences if more than one emissions unit is involved) between the **projected actual emissions** and the **baseline actual emissions** equals or exceeds the SER for that pollutant. [Rule 62-212.400(2)(a)1., F.A.C.]

For any existing electric utility steam generating unit, "baseline actual emissions" means the average rate, in TPY, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 5-year period immediately preceding the date a complete permit application is received by the Department. [Rule 62-210.200 (Definitions), F.A.C.]

"Projected actual emissions" means the maximum annual rate, in TPY, at which an existing emissions unit is projected to emit a PSD pollutant in any one of the 5 years following the date the unit resumes regular operation after the project, or in any one of the 10 years following that date, if the project involves increasing the emissions unit's design capacity or its potential to emit that PSD pollutant and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the major stationary source. [Rule 62-210.200 (Definitions), F.A.C.]

There are a number of additional considerations within the cited rules when making the described comparison of projected actual emissions to baseline actual emissions. One of the key considerations is that in making the calculation of projected actual emissions, the Department shall exclude that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions and that are also unrelated to the particular project including any increased utilization due to product demand growth.

The applicant conducted the described analysis, which is documented the report attached to the application available at: Link to FPL Application .

Table 2 is a summary of the applicant's PSD applicability analysis. The full step-by-step procedure is shown in the application report in Tables 1 through 9 (Pages 52 through 60 of the pdf document).

Table 2. Summary of the Applicant's PSD Applicability Analysis.

Pollutant [1]	Baseline Actual Emissions (TPY)	Projected Actual Emissions (TPY)	Projected Emissions Increase (TPY)	SER (TPY)	Subject to PSD?
CO	82.8	84.9	2.1	100	No
NO_X	195.3	200.6	5.4	40	No
PM/PM_{10}	40.3	41.3	0.9	25	No
SO_2	14.7	15.1	0.4	40	No
VOC	44.7	45.8	1.1	40	No
SAM	2.25	2.31	0.06	7	No
CO_2	2,915,796	2,982,773	66,977	75,000 (EPA SER)	No
N_2O (CO_2e)	1,675	1,713	38		
CH_4 (CO_2e)	1133	1,159	26		
Total GHG (CO_2e)	2,918,604	2,985,645	67,041		

1. N_2O is nitrous oxide – a GHG. CH_4 is methane – a GHG.

As shown in the above table, total project emissions will not exceed the PSD SER; therefore, the project is not subject to PSD preconstruction review.

A quick cross-check for NO_X is conducted by assuming that the possible heat input increase at each compressor inlet temperature is 5% (a very high and unexpected result of the modification). At International Organization for Standardization (ISO) conditions, NO_X emissions are approximately 16.3 pounds per hour (lb/hr) per CT. In that case, the additional emissions would be an additional 3.6 lb/hr from the four CT combined or 15.6 TPY at continuous operation. Even at such a high emission increase (assuming there is any increase at all), the SER for NO_X would not be triggered. A similar analysis for CO, SO_2, VOC, PM/PM_{10} and SAM would yield the same conclusion; PSD is not triggered.

While a similar analysis would suggest that the SER for CO_2 could be triggered if conducting an extreme calculation, the applicant's calculation is more realistic. While there is a projected increase in GHG emissions, there is an overall reduction in heat rate (Btu/kilowatt-hour) that reduces the amount of emissions for each megawatt-hour (MWH) generated.

According to the applicant, there will be an approximate 1% percent decrease in heat rate as a result of the project, which will reduce CO_2e emissions by roughly 29,000 TPY compared with the projected future actual emissions given in the table. Because of the efficiency improvements, the proposed project will reduce the output based emissions on the basis of lb CO_2e/MWH as well as lb NO_X/MWH. Similar conclusions apply for the other PSD pollutants, including CO, SO_2, PM/PM_{10} and VOC.

Although the applicant did not make the claim, the Department notes that when the solar thermal facility operates, it provides steam to the Martin Unit 8 HRSG and STG. This in turn reduces the need for supplementary duct firing in the HRSG. According to the company, the solar thermal facility, which entered service in 2010, will prevent emissions of 2.75 million tons of GHG over a period of 30 years or 91,667 TPY. In theory, this reduction would completely offset the possible increase from the present project. Further information, including a video, regarding the solar thermal facility is available at: Link to FPL Solar Facility .

For reference, for several years Martin Unit 8 together with Manatee Unit 3 comprised the most efficient units in the FPL peninsular Florida fleet. The recent construction of even more efficient units, including the 3,750 MW West County Plant and the 1,250 MW repowering projects at Cape Canaveral and Riviera will tend to move the dispatch order of Unit 8 downward despite the present efficiency improvements.

3. NSPS APPLICABILITY

Martin Unit 8 is an affected facility and an existing facility as defined in 40 CFR 60, Subpart A – General Provisions. [40 CFR 60.2 (Definitions) adopted as Rule 62-204.800(8)(a), F.A.C.] Link to 40 CFR 60.2 .

Martin Unit 8 was constructed pursuant to 40 CFR 60, Subpart GG - Standards of Performance for Stationary Gas Turbines. [40 CFR 60, Subpart GG adopted as Rule 62-204.800(8)(b)(40), F.A.C.] Link to Subpart GG . The key minimum requirements of Subpart GG applicable to Martin Unit 8 include standards for NO_X and SO_2. In summary these are:

- Limit of 75 ppmvd of NO_X plus an efficiency and fuel nitrogen correction that for the Martin Unit 8 CT would result in a limit of approximately 110 ppmvd as measured by an annual NO_X compliance test and continuous water or steam to fuel monitoring (with continuous emissions monitoring system (CEMS) alternatives); and
- Limit of 0.8% by weight of sulfur in the fuel burned in the CT using one of several standard methods (with alternatives for contracts and representative sampling indicating sulfur less than 20 grains per 100 standard cubic feet – gr/100 SCF).

The requirements of Subpart GG are much less stringent than those imposed by the permit that was issued for Unit 8 in 2003. Those requirements are listed in Table 3 and include CEMS to demonstrate NO_X compliance. For reference, the CT rarely if ever burn fuel oil or operate in simple cycle mode due to the resulting energy inefficiency compared with combined cycle and the increased maintenance requirements and fuel costs of fuel oil compared with natural gas.

Table 3. Emission Limits Applicable to FPL Martin Unit 8. Permit PSD-FL-327A.

Pollutant	Fuel [3,4]	Method of Operation [1,5]	Stack Test, 3-Run Average [2]		CEMS Block Average
			ppmvd @ 15% O_2	lb/hour	ppmvd @ 15% O_2
CO	Oil	Simple or Combined Cycle	14.4	64.7	15.0, 24-hr
	Gas	Simple Cycle	7.4	27.5	8.0, 24-hr
		Simple Cycle w/PA	12.0	45.0	12.0, 24-hr
		Combined Cycle, Normal	7.4	27.5	10.0, 24-hr
		Combined Cycle, All Modes	NA	NA	
NO_X	Oil	Simple Cycle	42.0	319.2	42.0, 3-hr
		Combined Cycle w/SCR	10.0	76.0	10.0, 24-hr
	Gas	Simple Cycle	9.0	58.7	9.0, 24-hr
		Simple Cycle w/PA	12.0	76.2	12.0, 24-hr
		Simple Cycle w/Peaking	15.0	95.3	15.0, 24-hr
		Combined Cycle w/SCR, Normal	2.5	16.3	2.5, 24-hr
		Combined Cycle w/SCR and DB	2.5	23.6	
		Combined Cycle w/SCR, All Modes	NA	NA	
PM/PM_{10}	Oil/Gas	Simple or Combined Cycle	Fuel Specifications [3]		
		Simple or Combined Cycle	Visible emissions shall not exceed 10% opacity for each 6-minute block average.		
SAM/SO_2	Oil/Gas	Simple or Combined Cycle	Fuel Specifications [3]		
VOC	Oil	Simple or Combined Cycle	2.5	6.0	NA
	Gas	Simple or Normal Combined Cycle	1.3	2.8	NA
		Combined Cycle, w/DB and/or PA	4.0	10.5	NA
Ammonia	Oil/Gas	Combined Cycle w/SCR	5.0	NA	NA

1. DB means duct burning. PA means power augmentation.
2. Initial Test. Corrected to 59°F based on manufacturer performance curves.
3. Each gas turbine shall fire natural gas as the primary fuel, which shall contain no more than 2.0 grains of sulfur per 100 standard cubic feet of natural gas. As a restricted alternate fuel, each gas turbine may fire No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight.
4. As a restricted alternate fuel, each gas turbine may fire No. 2 distillate oil (or a superior grade) for no more than 500 hours during any consecutive 12-months.
5. After demonstrating initial compliance in combined cycle mode, the combined group of four gas turbines shall operate in simple cycle mode for no more than an average of 1000 hours per gas turbine during any consecutive 12 months.

For the purposes of NSPS applicability, the term "modification" means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.
[40 CFR 60.2 (Definitions) adopted as Department Rule 62-204.800(8)(a), F.A.C.] Link to 40 CFR 60.2 .

Modifications are further addressed in Section 40 CFR 60.14. Link to 40 CFR 60.14 . This section requires that emission rates be expressed on a short-term mass per hour basis i.e. kilograms/hour (kg/hr). It includes a key exemption from the definition of modification for "maintenance, repair, and replacement which the Administrator determines to be routine for a source category ...."

The applicant presumed that replacement of the hot gas paths components with upgraded versions to improve efficiency does constitute "routine replacement".

Reconstruction, which would make an existing facility also an affected facility, is addressed in Section 40 CFR 60.15. Link to 40 CFR 60.15 . Reconstruction means "replacement of components of an existing facility to such an extent that the fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new facility".

Martin Unit 8 was constructed at a cost close to $600 million.[2] The marginal cost of the improved hot path components compared with like-kind routine replacement of existing components is at most a few percent of the cost of constructing a comparable entirely new facility. The Department concludes that the project does not constitute reconstruction.

The "normal scenario" is each CT burning natural gas, while operating in combined cycle mode and achieving 2.5 ppmvd and 16.3 lb NO_X/hr when corrected to 59°F (at 1,600 mmBtu/hr heat input, LHV). According to the CEMS data, the hourly emissions at 1,600 mmBtu/hr, LHV are typically less than 13 lb/hr. FPL tends to operate the SCR systems with a good margin of safety to ensure compliance with the applicable 24-hour concentration limits.

There may or may not be a small increase in short-term mass emission rates of NO_X. According to the application, "since the hourly emission rates for these pollutants may potentially increase, the proposed project is a potential modification according to the rules for NSPS. As a result, the improved Unit 8 turbines may be subject to 40 CFR 60 Subpart KKKK .....". The applicant also points out that "Martin Unit 8 was approved with several operating modes that could produce higher or equivalent emissions as the 7FA.04 project". For example, if operated in simple cycle mode, each unit may emit 15 and 42 ppmvd when burning natural gas and fuel oil, respectively.

40 CFR 60, Subpart KKKK - Standards of Performance for Stationary Combustion Turbines applies to stationary combustion turbines that commenced construction, modification or reconstruction after February 18, 2005. [40 CFR 60, Subpart KKKK adopted as Department Rule 62-204(8)(b)(81), F.A.C.]. Link to Subpart KKKK . Units subject to Subpart KKKK are not (no longer) subject to Subpart GG.

The key minimum requirements of Subpart KKKK applicable to Martin Unit 8 include standards for NO_X and SO_2. In summary these are:

- Limits of 15 and 42 ppmvd of NO_X, respectively, on a 30-day basis when operating in combined cycle mode and on a 4-hour basis when operating in simple cycle mode; and
- Limit of 0.90 lb SO_2/MWH or 0.060 lb SO_2/mmBtu using one of several standard sulfur fuel test methods (with alternatives for contracts and representative sampling indicating sulfur less than 20 gr/100 SCF of natural gas and less than 0.05%, by weight, in the fuel oil).

These requirements are more stringent than those of Subpart GG, though much less stringent than the BACT determination with one key exception; the Subpart KKKK simple cycle NO_X limit when firing natural gas would be applicable on a 4-hour basis rather than a 24-hour basis. Simple cycle operation is atypical for Unit 8.

Overall there would be no meaningful difference in the future operation of Unit 8 or future emissions regardless of the applicability of Subpart KKKK. The Department will make a final determination based on future operation and will require the applicant to submit data comparing emissions before and after the project in accordance with 40 CFR 60, Appendix C – Determination of Emission Rate Change. Details of the methodology are provided in the following link:
Link to Appendix C .

[2] FPL News Release. PSC approves need determination request for FPL's Manatee and Martin expansion plans. November 19, 2002. www.fpl.com/news/2002/02126.shtml

According to the introduction in Appendix C, the "method shall be used to determine whether a physical or operational change to an existing facility *resulted* in an increase in the emission rate to the atmosphere. The method used is the Student's *t* test, commonly used to make inferences from small samples". Fortunately Unit 8 has CEMS for NO_X and it will be easy to review data from before and after the change and make the inference from a relatively large number of runs (n = 20-29).

If short-term mass emission rate increases occur, then Unit 8 will be subject to the requirements of Subpart KKKK. The primary changes would be in certain reporting requirements and regulation of the HRSG under Subpart KKKK instead of 40 CFR 60, Subpart Da – Standards of Performance for Electric Utility Steam Generating Units. Again, the HRSG is already regulated by BACT in a more stringent manner than required by Subpart Da or Subpart KKKK.

4. PERMIT CHANGES

The only permit conditions required are:

- A description and authorization of the improvement project – replacement of hot gas path components with upgraded parts;
- Increases in the CT maximum heat input limits while burning natural gas and distillate fuel oil;
- A requirement that the permittee report emissions pursuant to Rule 62-212.300(1)(e), F.A.C. to determine in the future whether the project has triggered PSD; and
- A requirement that the permittee conduct tests in accordance with 40 CFR 60, Appendix C (using CEMS) and submit the data with a preliminary inference whether the emission rates after the change are greater than before the change with 95% confidence and whether Subpart KKKK applies.

4. PRELIMINARY DETERMINATION

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. Robert Wong 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.

Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

PERMITTEE

Florida Power & Light Company (FPL)
700 Universe Boulevard
Juno Beach, Florida 33408

Authorized Representative:
Brad Williams, Plant General Manager

Air Permit No. PSD-FL-327E
Project No. 0850001-026-AC
Martin Power Plant Unit 8
Combustion Turbine Improvements
Permit Expires: March 31, 2012
Martin County

PROJECT

This is the final air construction permit, which modifies original Permit No. PSD-FL-327 that authorized the construction of Unit 8 a "4-on-1" combined cycle system. This revision authorizes the replacement and upgrade of certain components on the gas turbines, a nominal 1,150 megawatts (MW) combined cycle unit. The proposed work will be conducted at the existing Martin Power Plant, which is an electric utility power plant categorized under Standard Industrial Classification No. 4911. The existing facility is located in Martin County at 21900 Southwest Warfield Boulevard in Indiantown, Florida. The UTM coordinates are Zone 17, 542.68 km East and 2992.65 km North.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit. As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Executed in Tallahassee, Florida
For the Division of Air Resource Management

(DRAFT)

_____ _____
(Name) (Date)

_____
(Print Name of Designated Representative)

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit with Appendices) was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on _____ to the persons listed below.

Mr. Brad Williams, FPL: david.williams@fpl.com
Mr. Kevin Washington, FPL: kevin.washington@fpl.com
Mr. Willie Welch, FPL: willie_welch@fpl.com
Mr. Kennard Kosky, P.E., Golder Associates: ken_kosky@golder.com
Mr. Lennon Anderson, DEP Southeast District: lennon.anderson@dep.state.fl.us
Ms. Heather Abrams, EPA Region 4: abrams.heather@epa.gov
Ms. Lynn Scearce, DEP OPC Reading File: lynn.scearce@dep.state.fl.us
Ms. Barbara Friday, DEP PP Reading File: barbara.friday@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.

(DRAFT)

_____ _____
(Clerk) (Date)

FACILITY DESCRIPTION

This facility consists of two oil and natural gas fired conventional fossil fuel steam electric generating stations (Units 1 and 2), two oil and natural gas fired combined cycle units (Units 3 and 4), four oil and natural gas fired combined-cycle combustion turbines (Unit 8), and associated support equipment.

Units 1 and 2 are fossil fuel fired steam electric generators consisting of boiler/steam generators which drive single reheat turbine generators, and are equipped with low nitrogen oxides (NO_X) dual fuel firing burners to reduce emissions of NO_X, and multicyclones, with fly ash reinjection, to control particulate matter emissions. The maximum capacity of each generator is 863.3 megawatts (MW).

Units 3 and 4 combined cycle combustion turbine systems (two "2-on-1" sets) consist of two General Electric Model PG7221 FA combustion turbines (CT) each nominally rated at 170 MW, with a matched unfired heat recovery steam generator (HRSG) and a 160 MW single steam turbine-electrical generator that serves the pair of gas turbines/HRSG systems. In addition, each system also includes inlet foggers installed at the compressor inlet to each of the CT units which reduce the turbine inlet air temperature. The temperature reduction improves the heat rate and increases power due to the cooler/denser inlet air. NO_X emissions are controlled by using dry low NO_X combustors for natural gas with steam injection for fuel oil firing. Steam injection is also used for power augmentation. The total generating capacity of each turbine system is approximately 500 MW.

Unit 8 combined cycle combustion turbine system ("4-on-1") consists of four General Electric Model PG7241 FA turbines (also known as the 7FA.03), each nominally rated at 170 MW, with a matched 495 million British thermal units per hour (mmBtu/hr) gas-fired HRSG, and a 470 MW single steam turbine-electrical generator that serves all four gas turbines/HRSG systems. In addition, the system also includes an automated gas turbine control system, inlet air filtration systems, evaporative inlet air cooling systems, exhaust stacks that are 120 feet in height and 19 feet in diameter, and associated support equipment. Natural gas is the primary fuel, with very low sulfur distillate oil as a limited backup fuel. Emissions of carbon monoxide (CO), particulate matter (PM/PM_{10}), sulfur dioxide (SO_2), and volatile organic compounds (VOC) are minimized by the efficient combustion of these clean fuels at high temperatures. Dry low-NO_X (DLN) combustion technology for gas firing and water injection for oil firing reduce NO_X emissions during simple cycle operation. A selective catalytic reduction system in combination with the other NO_X controls further reduces NO_X emissions during combined cycle operation. The total generating capacity of this turbine system is approximately 1,150 MW.

There is also a solar thermal facility on-site that produces steam, which is used in Unit 8 HRSG, thus reducing fossil fuel use when adequate sunlight is available.

This facility also includes one auxiliary boiler, two diesel generators (one unregulated), two storage oil tanks, a mechanical cooling tower, and four electrical heaters. Also included in this permit is an additional unregulated emissions unit identified as facility-wide PM and VOC emissions.

PROPOSED PROJECT

The applicant proposes to upgrade the four CTs associated with Unit 8 during an otherwise routine maintenance outage. The changes will increase the efficiency and power output of each CT by installing new hot gas path components, combustion liners, flow sleeves and new control software characteristic of the more recent GE Model 7FA.04 CT to increase firing temperature. Details of the project are provided in the application and the enclosed Technical Evaluation and Preliminary Determination. The combined-cycle combustion turbines are Acid Rain Units. The following emission units (EU) are affected by this air construction permit.

EU No.	Emission Unit Description
011	Combustion Turbine with Heat Recovery Steam Generator (CT 8A)
012	Combustion Turbine with Heat Recovery Steam Generator (CT 8B)
017	Combustion Turbine with Heat Recovery Steam Generator (CT 8C)
018	Combustion Turbine with Heat Recovery Steam Generator (CT 8D)

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility operates units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.
- The facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.
- The facility operates units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

1. Permitting Authority: The permitting authority for this project is the Office of Permitting and Compliance, Division of Air Resource Management, Florida Department of Environmental Protection (Department). The Office of Permitting and Compliance mailing address is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. All documents related to applications for permits to operate an emissions unit shall be submitted to the Departments Southeast District at: 400 North Congress Avenue, Suite 200, West Palm Beach, Florida 33401.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Departments Southeast District at: 400 North Congress Avenue, Suite 200, West Palm Beach, Florida 33401.

3. Appendices: The following Appendices are attached as a part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); and Appendix C (Common Conditions).

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

6. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

7. Source Obligation: At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification. [Rule 62-212.400(12), F.A.C.]

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

9. Actual Emissions Reporting: This permit is based on an analysis that compared baseline actual emissions with projected actual emissions and avoided the requirements of subsection 62-212.400(4) through (12), F.A.C. for several pollutants. Therefore, pursuant to Rule 62-212.300(1)(e), F.A.C., the permittee is subject to the following monitoring, reporting and recordkeeping provisions as described in Section 3, Specific Condition No. 4.

10. NSPS, Subpart KKKK Applicability Determination: The permittee shall submit an applicability analysis related to 40 CFR 60, Subpart KKKK – Standards of Performance for Stationary Combustion Turbines with the Title V Permit application required by Section 2, Condition 8 above and as detailed in Section 3, Specific Condition No. 4.

B. UNIT 8 COMBINED CYCLE - GAS TURBINES (EU 011, 012, 017, 018)

This section of the permit addresses the following emissions units.

EU No.	Emission Unit Description
011	Combustion Turbine with Heat Recovery Steam Generator (CT 8A)
012	Combustion Turbine with Heat Recovery Steam Generator (CT 8B)
017	Combustion Turbine with Heat Recovery Steam Generator (CT 8C)
018	Combustion Turbine with Heat Recovery Steam Generator (CT 8D)

Each EU consists of a nominal 170 MW General Electric Model PG 7241 FA (series 7FA.03) gas turbine-electrical generator set, an automated gas turbine control system, an inlet air filtration system, an evaporative inlet air cooling system, a heat recovery steam generator (HRSG) each equipped with a 495 mmMBtu/hr natural gas fired duct burner, a stack, and associated support equipment. Steam from each HRSG is delivered to the single steam turbine-electrical generator, which has a nominal capacity of 470 MW. The total nominal generating capacity of the "4 on 1" combined cycle unit system is 1,150 MW. Each stack is 120 ft tall (19 ft diameter). At a compressor inlet air temperature of 59° F, each gas turbine heat input (LHV) is approximately ~~1,600~~ 1,660 mmBtu/hr (gas) and ~~1,811~~ 1,885 mmBtu/hour (oil). The exhaust flow rate is 1,004,200 actual cubic feet per minute (acfm) (gas) and 1,193,900 acfm (oil) at a temperature of 202° F and 295° F, respectively.

The units are fired with natural gas as the primary fuel and distillate oil as a restricted alternate fuel. The efficient combustion of natural gas at high temperatures minimizes emissions of CO, PM/PM_{10}, SAM, SO_2, and VOC. NO_X emissions are reduced by Dry Low-NO_X (DLN) combustion technology (simple cycle mode). A selective catalytic reduction (SCR) system combined with Dry Low-NO_X (DLN) combustion technology further reduces NO_X emissions during combined cycle mode. These emissions units commenced commercial operation in June 2005.

Each gas turbine is equipped with continuous emissions monitoring system (CEMS) to measure and record CO and NO_X emissions as well as flue gas oxygen or carbon dioxide content.

PREVIOUS APPLICABLE REQUIREMENTS

1. Other Permits: The conditions of this permit supplement all previously issued air construction and operation permits for these emissions units. Unless otherwise specified, these conditions are in addition to all other applicable permit conditions and regulations. [Rule 62-4.070, F.A.C.]

MODIFIED PERMIT CONDITIONS

Changes referring to original Permit No. PSD-FL-327 and the subsequent modifications and amendments for this project, Permit PSD-FL-327E (Project 0850001-026-AC), will identify each specific condition as currently modified and show the new revisions. New text will be shown with double underline and deleted text will be shown with ~~strikethrough~~.

2. Permitted Capacity - Gas Turbines: Specific Condition III.A.6 of PSD-FL-327 is replaced with the with the following condition:

   The maximum heat input rate to each gas turbine is ~~1,600~~ 1,660 mmBtu per hour when firing natural gas and ~~1,811~~ 1,885 mmBtu per hour when firing distillate oil (based on a compressor inlet air temperature of 59° F, the LHV of each fuel, and 100% load). Heat input rates will vary depending upon gas turbine characteristics, ambient conditions, alternate methods of operation, and evaporative cooling. The permittee shall provide manufacturer's performance curves (or equations) that correct for site conditions to the Permitting and Compliance Authorities within 45 days of completing the initial compliance testing. Operating data may be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department. [Rule 62-210.200(PTE), F.A.C.]

EQUIPMENT

3. Combustion Turbine Improvements on Unit 8: The permittee is authorized to conduct the following work on Unit 8 including the replacement of various components of the Series 7FA.03 gas turbines with upgraded components of the Series 7FA.04 version including (but not limited to) the following:

   - New hot gas path components;
   - New combustion liners and flow sleeves; and
   - New control software.

   [Application No. 0850001-026-AC]

REPORTING REQUIREMENTS

{Permitting Note: Continuous compliance with the CO and NO_X standards will be demonstrated by CEMS. Other required stack tests may be conducted during the next scheduled period in accordance with existing permit conditions.}

4. Actual Emissions Reporting: This permit is based on an analysis that compared baseline actual emissions with projected actual emissions and avoided the requirements of subsection 62-212.400(4) through (12), F.A.C. for several pollutants. Therefore, pursuant to Rule 62-212.300(1)(e), F.A.C., the permittee is subject to the following monitoring, reporting and recordkeeping provisions.

   a. The permittee shall monitor the emissions of any PSD pollutant that the Department identifies could increase as a result of the construction or modification and that is emitted by any emissions unit that could be affected; and, using the most reliable information available, calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change. Emissions shall be computed in accordance with the provisions in Rule 62-210.370, F.A.C., which are provided in Appendix C of this permit.

   b. The permittee shall report to the Department within 60 days after the end of each calendar year during the 5-year period setting out the unit's annual emissions during the calendar year that preceded submission of the report. The report shall contain the following:

      1) The name, address and telephone number of the owner or operator of the major stationary source;
      2) The annual emissions calculations pursuant to the provisions of 62-210.370, F.A.C., which are provided in Appendix C of this permit;
      3) If the emissions differ from the preconstruction projection, an explanation as to why there is a difference; and
      4) Any other information that the owner or operator wishes to include in the report.

   c. The information required to be documented and maintained pursuant to subparagraphs 62-212.300(1)(e)1 and 2, F.A.C., shall be submitted to the Department, which shall make it available for review to the general public.

   d. For this project, the permittee estimated the following baseline actual emissions: 82.75 tons/year of CO; 195.25 tons/year of NO_X; 14.68 tons/year of SO_2; 44.72 tons/year of VOC; 40.33 tons/year of PM/PM_{10}; and 2.25 tons/year of sulfuric acid mist (SAM).

   e. The Department has identified NO_X and CO as the only PSD-pollutants that could reasonably increase as a result of this modification. The permittee shall use the installed CEMS to determine and report the actual annual emissions of NO_X and CO for the purpose of comparisons with baseline actual emissions.

   [Application 0850001-026-AC; and Rules 62-212.300(1)(e) and 62-210.370, F.A.C.]

5. NSPS, KKKK Applicability Determination: The permittee shall conduct tests in accordance with 40 CFR 60, Appendix C - Determination of Emission Rate Change. The permittee shall submit the data with

the Title V Permit application required by Section 2, Condition 8 above. The submittal shall include a preliminary inference whether the short-term NO_X emission rates (in pounds per hour), while operating in the normal combined cycle mode and burning natural gas, after the change are greater than before the change with 95% confidence and an analysis regarding the applicability of 40 CFR 60, Subpart KKKK – Standards of Performance for Stationary Combustion Turbines. The tests shall be conducted using the installed NO_X CEMS with the units operated as if a manual test were being performed. Valid data using the averaging time which would be required if a manual emission test were being conducted shall be used. The number (n) of runs shall be between 20 and 29. [Application 0850001-026-AC]

Contents

CITATION FORMATS

The following illustrate the formats used in the permit to identify applicable requirements from permits and regulations.

Old Permit Numbers

Example: Permit No. AC50-123456 or Permit No. AO50-123456

Where: "AC" identifies the permit as an Air Construction Permit
"AO" identifies the permit as an Air Operation Permit
"123456" identifies the specific permit project number

New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: "099" represents the specific county ID number in which the project is located
"2222" represents the specific facility ID number for that county
"001" identifies the specific permit project number
"AC" identifies the permit as an air construction permit
"AF" identifies the permit as a minor source federally enforceable state operation permit
"AO" identifies the permit as a minor source air operation permit
"AV" identifies the permit as a major Title V air operation permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: "PSD" means issued pursuant to the preconstruction review requirements of the Prevention of Significant Deterioration of Air Quality
"FL" means that the permit was issued by the State of Florida
"317" identifies the specific permit project number

Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

Example: [40 CRF 60.7]

Means: Title 40, Part 60, Section 7

GLOSSARY OF COMMON TERMS

° F: degrees Fahrenheit
µg: microgram
AAQS: Ambient Air Quality Standard
acf: actual cubic feet
acfm: actual cubic feet per minute
ARMS: Air Resource Management System (Department's database)
BACT: best available control technology
bhp: brake horsepower
Btu: British thermal units
CAM: compliance assurance monitoring
CEMS: continuous emissions monitoring system
cfm: cubic feet per minute
CFR: Code of Federal Regulations

CAA: Clean Air Act

CMS: continuous monitoring system

CO: carbon monoxide

CO_2: carbon dioxide

COMS: continuous opacity monitoring system

DARM: Division of Air Resource Management

DEP: Department of Environmental Protection

Department: Department of Environmental Protection

dscf: dry standard cubic feet

dscfm: dry standard cubic feet per minute

EPA: Environmental Protection Agency

ESP: electrostatic precipitator (control system for reducing particulate matter)

EU: emissions unit

F: fluoride

F.A.C.: Florida Administrative Code

F.A.W.: Florida Administrative Weekly

F.D.: forced draft

F.S.: Florida Statutes

FGD: flue gas desulfurization

FGR: flue gas recirculation

ft^2: square feet

ft^3: cubic feet

gpm: gallons per minute

gr: grains

HAP: hazardous air pollutant

Hg: mercury

I.D.: induced draft

ID: identification

kPa: kilopascals

lb: pound

MACT: maximum achievable technology

MMBtu: million British thermal units

MSDS: material safety data sheets

MW: megawatt

NESHAP: National Emissions Standards for Hazardous Air Pollutants

NO_X: nitrogen oxides

NSPS: New Source Performance Standards

O&M: operation and maintenance

O_2: oxygen

Pb: lead

PM: particulate matter

PM_{10}: particulate matter with a mean aerodynamic diameter of 10 microns or less

ppm: parts per million

ppmv: parts per million by volume

ppmvd: parts per million by volume, dry basis

QA: quality assurance

QC: quality control

PSD: prevention of significant deterioration

psi: pounds per square inch

PTE: potential to emit

RACT: reasonably available control technology

RATA: relative accuracy test audit

RBLC: EPA's RACT/BACT/LAER Clearinghouse

SAM: sulfuric acid mist

scf: standard cubic feet

scfm: standard cubic feet per minute

SIC: standard industrial classification code

SIP: State Implementation Plan

SNCR: selective non-catalytic reduction (control system used for reducing emissions of nitrogen oxides)

SO_2: sulfur dioxide

TPD: tons/day

TPH: tons per hour

TPY: tons per year

TRS: total reduced sulfur

UTM: Universal Transverse Mercator coordinate system

VE: visible emissions

VOC: volatile organic compounds

General Conditions

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

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permitconditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiateenforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditionsof this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in subsections 403.987(6) and 403.722(5), F.S., the issuance of this permit does not convey anyvested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or anyinvasion of personal rights, nor any infringementof federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other department permit that may be required for other aspects of the total projectwhich are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment oftitle, and not constitute authority for the use of submerged lands unless herein provided and the necessary title orleasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fundmay express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare,animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Departmentrules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (andrelated appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of thispermit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities orsimilar systems when necessary to achieve compliance with the conditions of the permit and when required byDepartment rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to thepremises where the permitted activity is located or conducted to:

   a. Have access to and copy any records that must be kept under conditions of the permit;

   b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

   c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition orlimitation specified in this permit, the permittee shall immediately provide the Department with the followinginformation:

   a. A description of and cause of noncompliance; and

   b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time thenoncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of thenoncompliance. The permittee shall be responsible for any and all damages which may result and may be subject toenforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data andother information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted sourcearising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedureand appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonabletime for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes orDepartment rules. A reasonable time for compliance with a new or amended surface water quality standard, otherthan those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.

11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

    a. Determination of Best Available Control Technology (not applicable to project);

    b. Determination of Prevention of Significant Deterioration (not applicable to project); and

    c. Compliance with New Source Performance Standards (not applicable to project).

14. The permittee shall comply with the following:

    a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulatedby the Department.

    b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

    c. Records of monitoring information shall include:

        (a) The date, exact place, and time of sampling or measurements;

        (b) The person responsible for performing the sampling or measurements;

        (c) The dates analyses were performed;

        (d) The person responsible for performing the analyses;

        (e) The analytical techniques or methods used;

        (f) The results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any informationrequired by law which is needed to determine compliance with the permit. If the permittee becomes aware therelevant facts were not submitted or were incorrect in the permit application or in any report to the Department, suchfacts or information shall be corrected promptly.

Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.

EMISSIONS AND CONTROLS

1. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]

2. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]

3. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed 2 hours in any 24-hour period unless specifically authorized by the Department for longer duration. Pursuant to Rule 62-210.700(5), F.A.C., the permit subsection may specify more or less stringent requirements for periods of excess emissions. Rule 62-210-700(Excess Emissions), F.A.C., cannot vary or supersede any federal NSPS or NESHAP provision. [Rule 62-210.700(1), F.A.C.]

4. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

5. Excess Emissions - Notification: In case of excess emissions resulting from malfunctions, the permittee shall notify the Compliance Authority in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]

6. VOC or OS Emissions: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]

7. Objectionable Odor Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

8. General Visible Emissions: No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]

9. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

RECORDS AND REPORTS

10. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least 5 years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rule 62-213.440(1)(b)2, F.A.C.]

11. Emissions Computation and Reporting:

    a. *Applicability.* This rule sets forth required methodologies to be used by the owner or operator of a facility for computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for computing emissions for purposes of the reporting requirements of subsection 62-210.370(3) and paragraph 62-212.300(1)(e), F.A.C., or of any permit condition that requires emissions be computed in accordance

with this rule. This rule is not intended to establish methodologies for determining compliance with the emission limitations of any air permit. [Rule 62-210.370(1), F.A.C.]

b. *Computation of Emissions.* For any of the purposes set forth in subsection 62-210.370(1), F.A.C., the owner or operator of a facility shall compute emissions in accordance with the requirements set forth in this subsection.

(1) Basic Approach. The owner or operator shall employ, on a pollutant-specific basis, the most accurate of the approaches set forth below to compute the emissions of a pollutant from an emissions unit; provided, however, that nothing in this rule shall be construed to require installation and operation of any continuous emissions monitoring system (CEMS), continuous parameter monitoring system (CPMS), or predictive emissions monitoring system (PEMS) not otherwise required by rule or permit, nor shall anything in this rule be construed to require performance of any stack testing not otherwise required by rule or permit.

(a) If the emissions unit is equipped with a CEMS meeting the requirements of paragraph 62-210.370(2)(b), F.A.C., the owner or operator shall use such CEMS to compute the emissions of the pollutant, unless the owner or operator demonstrates to the department that an alternative approach is more accurate because the CEMS represents still-emerging technology.

(b) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C, but emissions of the pollutant can be computed pursuant to the mass balance methodology of paragraph 62-210.370(2)(c), F.A.C., the owner or operator shall use such methodology, unless the owner or operator demonstrates to the department that an alternative approach is more accurate.

(c) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., and emissions cannot be computed pursuant to the mass balance methodology, the owner oroperator shall use an emission factor meeting the requirements of paragraph 62-210.370(2)(d), F.A.C., unless the owner or operator demonstrates to the department that an alternative approach is more accurate.

(2) Continuous Emissions Monitoring System (CEMS).

(a) An owner or operator may use a CEMS to compute emissions of a pollutant for purposes of this rule provided:

1) The CEMS complies with the applicable certification and quality assurance requirements of 40 CFR Part 60, Appendices B and F, or, for an acid rain unit, the certification and quality assurance requirements of 40 CFR Part 75, all adopted by reference at Rule 62-204.800, F.A.C.; or

2) The owner or operator demonstrates that the CEMS otherwise represents the most accurate means of computing emissions for purposes of this rule.

(b) Stack gas volumetric flow rates used with the CEMS to compute emissions shall be obtained by the most accurate of the following methods as demonstrated by the owner or operator:

1) A calibrated flow meter that records data on a continuous basis, if available; or

2) The average flow rate of all valid stack tests conducted during a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.

(c) The owner or operator may use CEMS data in combination with an appropriate ffactor, heat input data, and any other necessary parameters to compute emissions if such method is demonstrated by the owner or operator to be more accurate than using a stack gas volumetric flow rate as set forth at subparagraph 62-210.370(2)(b)2., F.A.C., above.

(3) Mass Balance Calculations.

(a) An owner or operator may use mass balance calculations to compute emissions of a pollutant for purposes of this rule provided the owner or operator:

1) Demonstrates a means of validating the content of the pollutant that is contained in or created by all materials or fuels used in or at the emissions unit; and

2) Assumes that the emissions unit emits all of the pollutant that is contained in or created by any material or fuel used in or at the emissions unit if it cannot otherwise be accounted for in the process or in the capture and destruction of the pollutant by the unit's air pollution control equipment.

(b) Where the vendor of a raw material or fuel which is used in or at the emissions unit publishes a range of pollutant content from such material or fuel, the owner or operator shall use the highest value of the range to compute the emissions, unless the owner or operator demonstrates using site-specific data that another content within the range is more accurate.

(c) In the case of an emissions unit using coatings or solvents, the owner or operator shall document, through purchase receipts, records and sales receipts, the beginning and ending VOC inventories, the amount of VOC purchased during the computational period, and the amount of VOC disposed of in the liquid phase during such period.

(4) Emission Factors.

a. An owner or operator may use an emission factor to compute emissions of a pollutant for purposes of this rule provided the emission factor is based on site-specific data such as stack test data, where available, unless the owner or operator demonstrates to the department that an alternative emission factor is more accurate. An owner or operator using site-specific data to derive an emission factor, or set of factors, shall meet the following requirements.

1) If stack test data are used, the emission factor shall be based on the average emissions per unit of input, output, or gas volume, whichever is appropriate, of all valid stack tests conducted during at least a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.

2) Multiple emission factors shall be used as necessary to account for variations in emission rate associated with variations in the emissions unit's operating rate or operating conditions during the period over which emissions are computed.

3) The owner or operator shall compute emissions by multiplying the appropriate emission factor by the appropriate input, output or gas volume value for the period over which the emissions are computed. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.

b. If site-specific data are not available to derive an emission factor, the owner or operator may use a published emission factor directly applicable to the process for which emissions are computed. If no directly-applicable emission factor is available, the owner or operator may use a factor based on a similar, but different, process.

(5) Accounting for Emissions During Periods of Missing Data from CEMS, PEMS, or CPMS. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of missing data from CEMS, PEMS, or CPMS using other site-specific data to generate a reasonable estimate of such emissions.

(6) Accounting for Emissions During Periods of Startup and Shutdown. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit.

(7) Fugitive Emissions. In computing the emissions of a pollutant from a facility or emissions unit, the owner or operator shall account for the fugitive emissions of the pollutant, to the extent quantifiable, associated with such facility or emissions unit.

(8) Recordkeeping. The owner or operator shall retain a copy of all records used to compute emissions pursuant to this rule for a period of five years from the date on which such emissions information is submitted to the department for any regulatory purpose.

[Rule 62-210.370(2), F.A.C.]

c. *Annual Operating Report for Air Pollutant Emitting Facility*

(1) The Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) shall be completed each year for the following facilities:

a. All Title V sources.

b. All synthetic non-Title V sources.

c. All facilities with the potential to emit ten (10) tons per year or more of volatile organic compounds or twenty-five (25) tons per year or more of nitrogen oxides and located in an ozone nonattainment area or ozone air quality maintenance area.

d. All facilities for which an annual operating report is required by rule or permit.

(2) Notwithstanding paragraph 62-210.370(3)(a), F.A.C., no annual operating report shall be required for any facility operating under an air general permit.

(3) The annual operating report shall be submitted to the appropriate Department of Environmental Protection (DEP) division, district or DEP-approved local air pollution control program office by April 1 of the following year. If the report is submitted using the Department's electronic annual operating report software, there is no requirement to submit a copy to any DEP or local air program office.

(4) Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C., for purposes of the annual operating report.

(5) Facility Relocation. Unless otherwise provided by rule or more stringent permit condition, the owner or operator of a relocatable facility must submit a Facility Relocation Notification Form (DEP Form No. 62-210.900(6)) to the Department at least 30 days prior to the relocation. A separate form shall be submitted for each facility in the case of the relocation of multiple facilities which are jointly owned or operated.

[Rule 62-210.370(3), F.A.C.]

Florida Department of Environmental Protection

Memorandum

TO: Jeff Koerner, Office of Permitting and Compliance

THROUGH: Al Linero, Office of Permitting and Compliance

FROM: Robert Wong, Power Plants Group

DATE: August 19, 2011

SUBJECT: Draft Air Permit No. 0850001-026-AC
PSD-FL-327E
FPL Martin Power Plant Unit 8
Combustion Turbine Improvements

This project is subject to minor source preconstruction review. Attached for your review are the following items:

- Written Notice of Intent to Issue Air Permit;
- Public Notice of Intent to Issue Air Permit;
- Technical Evaluation and Preliminary Determination;
- Draft Permit; and
- P.E. Certification.

The Draft Permit authorizes replacement of certain components of the Unit 8 combustion turbines with updated versions. The project will result in a small increase in heat input as well as in power output and efficiency. There may or may not be a small increase in the short-term NO_X mass emission rate, which will be determined after the upgrade.

A final NSPS applicability analysis will be included in the subsequent Title V Operation Permit application. The PSD and BACT requirements in Rule 62-212.400, F.A.C. do not apply to this project.

The planned issuance date (8/19/2011) will be Day 19 since receipt of the application.

Attachments

P.E. CERTIFICATION STATEMENT

PERMITTEE

Florida Power & Light Company (FPL)
700 Universe Boulevard
Juno Beach, Florida 33408

Air Permit No. PSD-FL-327E
Project No. 0850001-026-AC
Martin Power Plant Unit 8
Combustion Turbine Improvements

PROJECT DESCRIPTION

FPL applicant proposes to improve the four combustion turbine-electric generators (CT) associated with Unit 8 during an otherwise routine maintenance outage. The changes will increase the efficiency and power output of the CT by replacing certain hot gas path components in the GE Model 7FA.03 CT with those of the newer GE Model 7FA.04 CT. Specifically, the improvements include the installation of improved combustion liners and flow sleeves to increase firing temperature. New control software will also be installed.

Any increases in annual emissions will be less than the respective significant emission rates established in Rule 62-210.200, Florida Administrative Code (F.A.C.). A review for the Prevention of Significant Deterioration (PSD) and a new Best Available Control Technology (BACT) determination were not required pursuant to Rule 62-212.400, F.A.C.

There will be no change in the previous BACT determinations conducted for Unit 8 in 2003. Unit 8 uses inherently clean fuels and is subject to nitrogen oxides (NO_X) concentration limits of 2.5 and 10 parts per million by volume, dry at 15% oxygen when firing natural gas and fuel oil, respectively. The NO_X emissions are controlled by an ammonia-based selective catalytic reduction system. The previous BACT determination also established stringent limits for emissions of carbon monoxide, particulate matter, volatile organic compounds, sulfur dioxide and sulfuric acid mist.

There may or may not be a small increase in short-term mass emission rates of NO_X, which will be determined by comparing emissions before and after the project in accordance with 40 Code of Federal Regulation, Part 60 (40 CFR 60), Appendix C – Determination of Emission Rate Change. If short-term mass emission rate increases occur, then Unit 8 will be subject to the requirements of 40 CFR 60, Subpart KKKK - Standards of Performance for Stationary Combustion Turbines. The emission limits given therein are less stringent than those already applicable to Unit 8 pursuant to the earlier BACT determination (which will remain in effect).

I HEREBY CERTIFY *that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify any other aspects of the proposal (including, but not limited to, the electrical, civil, mechanical, structural, hydrological, geological, and meteorological features).*

A. A. Linero, P.E.
Registration Number 26032

(Date): 8/18/2011

LINERO ... PROFESSIONAL ENGINEER

Friday, Barbara

From: Friday, Barbara
Sent: Tuesday, August 23, 2011 11:38 AM
To: 'david.williams@fpl.com'
Cc: Anderson, Lennon; 'abrams.heather@epa.gov'; Scearce, Lynn; Linero, Alvaro; Wong, Robert; 'kevin.washington@fpl.com'; 'willie_welch@fpl.com'; 'ken_kosky@golder.com'; Holtom, Jonathan
Subject: FLORIDA POWER & LIGHT COMPANY - MARTIN POWER PLANT; 0850001-026-AC
Attachments: 0850001-026-AC-D-SignedWrittenNoticeofIntent.pdf

Tracking:

Recipient	Delivery
'david.williams@fpl.com'	
Anderson, Lennon	Delivered: 8/23/2011 11:38 AM
'abrams.heather@epa.gov'	
Scearce, Lynn	Delivered: 8/23/2011 11:38 AM
Linero, Alvaro	Delivered: 8/23/2011 11:38 AM
Wong, Robert	Delivered: 8/23/2011 11:38 AM
'kevin.washington@fpl.com'	
'willie_welch@fpl.com'	
'ken_kosky@golder.com'	
Holtom, Jonathan	Delivered: 8/23/2011 11:38 AM

Dear Mr. Williams:

Attached is the official **Notice of Draft Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Attention: Robert Wong

Owner/Company Name: FLORIDA POWER and LIGHT (PMR)
Facility Name: MARTIN POWER PLANT
Project Number: 0850001-026-AC
Permit Status: DRAFT
Permit Activity: CONSTRUCTION
Facility County: MARTIN

Click on the following link to access the permit project documents:
http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0850001.026.AC.D_pdf.zip

The Office of Permitting and Compliance is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "*Air Permit Documents Search*" website at http://www.dep.state.fl.us/air/emission/apds/default.asp.

Permit project documents addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Office of Permitting and Compliance.

Note: The attached document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html> .

Regards,
Barbara Friday
Office of Permitting and Compliance (OPC)
Division of Air Resources Management
850-717-9095

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Herschel T. Vinyard Jr. is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on this link to the DEP Customer Survey. Thank you in advance for completing the survey.

Friday, Barbara

From: Microsoft Exchange
To: 'david.williams@fpl.com'; 'kevin.washington@fpl.com'; 'willie_welch@fpl.com'
Sent: Tuesday, August 23, 2011 11:38 AM
Subject: Relayed: FLORIDA POWER & LIGHT COMPANY - MARTIN POWER PLANT; 0850001-026-AC

Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:

'david.williams@fpl.com'

'kevin.washington@fpl.com'

'willie_welch@fpl.com'

Subject: FLORIDA POWER & LIGHT COMPANY - MARTIN POWER PLANT; 0850001-026-AC

Sent by Microsoft Exchange Server 2007

Friday, Barbara

From: Williams, David [David.Williams@fpl.com]
Sent: Tuesday, August 23, 2011 4:38 PM
To: Friday, Barbara
Cc: Anderson, Lennon; 'abrams.heather@epa.gov'; Scearce, Lynn; Linero, Alvaro; Wong, Robert; Washington, Kevin; Welch, Willie; 'ken_kosky@golder.com'; Holtom, Jonathan
Subject: RE: FLORIDA POWER & LIGHT COMPANY - MARTIN POWER PLANT; 0850001-026-AC

I am able to view the documents.

Brad Williams
Plant General Manager
FP&L
Martin Plant
Office: 772-597-7106
Mobile: 321-258-4779

From: Friday, Barbara [mailto:Barbara.Friday@dep.state.fl.us]
Sent: Tuesday, August 23, 2011 11:38 AM
To: Williams, David
Cc: Anderson, Lennon; 'abrams.heather@epa.gov'; Scearce, Lynn; Linero, Alvaro; Wong, Robert; Washington, Kevin; Welch, Willie; 'ken_kosky@golder.com'; Holtom, Jonathan
Subject: FLORIDA POWER & LIGHT COMPANY - MARTIN POWER PLANT; 0850001-026-AC

Dear Mr. Williams:

Attached is the official **Notice of Draft Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Attention: Robert Wong

Owner/Company Name: FLORIDA POWER and LIGHT (PMR)
Facility Name: MARTIN POWER PLANT
Project Number: 0850001-026-AC
Permit Status: DRAFT
Permit Activity: CONSTRUCTION
Facility County: MARTIN

Click on the following link to access the permit project documents:
http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0850001.026.AC.D_pdf.zip

The Office of Permitting and Compliance is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or

search for other project documents using the "*Air Permit Documents Search*" website at http://www.dep.state.fl.us/air/emission/apds/default.asp.

Permit project documents addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Office of Permitting and Compliance.

Note: The attached document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html> .

Regards,
Barbara Friday
Office of Permitting and Compliance (OPC)
Division of Air Resources Management
850-717-9095

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Herschel T. Vinyard Jr. is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on this link to the DEP Customer Survey. Thank you in advance for completing the survey.

Friday, Barbara

From: Washington, Kevin [Kevin.Washington@fpl.com]
To: Friday, Barbara
Sent: Tuesday, August 23, 2011 12:20 PM
Subject: Read: FLORIDA POWER & LIGHT COMPANY - MARTIN POWER PLANT; 0850001-026-AC

Your message was read on Tuesday, August 23, 2011 12:20:19 PM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Washington, Kevin [Kevin.Washington@fpl.com]
Sent: Tuesday, August 23, 2011 12:35 PM
To: Friday, Barbara
Subject: RE: FLORIDA POWER & LIGHT COMPANY - MARTIN POWER PLANT; 0850001-026-AC

Barbara,
I was able to access the documents.
Thank you.
Kevin Washington
Project Manager
FPL Environmental Services

From: Friday, Barbara [mailto:Barbara.Friday@dep.state.fl.us]
Sent: Tuesday, August 23, 2011 11:38 AM
To: Williams, David
Cc: Anderson, Lennon; 'abrams.heather@epa.gov'; Scearce, Lynn; Linero, Alvaro; Wong, Robert; Washington, Kevin; Welch, Willie; 'ken_kosky@golder.com'; Holtom, Jonathan
Subject: FLORIDA POWER & LIGHT COMPANY - MARTIN POWER PLANT; 0850001-026-AC

Dear Mr. Williams:

Attached is the official **Notice of Draft Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Attention: Robert Wong

Owner/Company Name: FLORIDA POWER and LIGHT (PMR)
Facility Name: MARTIN POWER PLANT
Project Number: 0850001-026-AC
Permit Status: DRAFT
Permit Activity: CONSTRUCTION
Facility County: MARTIN

Click on the following link to access the permit project documents:
http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0850001.026.AC.D_pdf.zip

The Office of Permitting and Compliance is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "*Air Permit Documents Search*" website at http://www.dep.state.fl.us/air/emission/apds/default.asp.

Permit project documents addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise

this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Office of Permitting and Compliance.

Note: The attached document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html> .

Regards,

Barbara Friday
Office of Permitting and Compliance (OPC)
Division of Air Resources Management
850-717-9095

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Herschel T. Vinyard Jr. is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on this link to the DEP Customer Survey. Thank you in advance for completing the survey.

Friday, Barbara

From: Welch, Willie [Willie.Welch@fpl.com]
To: Friday, Barbara
Sent: Tuesday, August 23, 2011 11:41 AM
Subject: Read: FLORIDA POWER & LIGHT COMPANY - MARTIN POWER PLANT; 0850001-026-AC

Your message was read on Tuesday, August 23, 2011 11:41:03 AM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Kosky, Ken [Ken_Kosky@golder.com]
To: Friday, Barbara
Sent: Tuesday, August 23, 2011 11:38 AM
Subject: Read: FLORIDA POWER & LIGHT COMPANY - MARTIN POWER PLANT; 0850001-026-AC

Your message was read on Tuesday, August 23, 2011 11:38:18 AM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Microsoft Exchange
To: Linero, Alvaro; Holtom, Jonathan; Scearce, Lynn; Anderson, Lennon
Sent: Tuesday, August 23, 2011 11:38 AM
Subject: Delivered: FLORIDA POWER & LIGHT COMPANY - MARTIN POWER PLANT; 0850001-026-AC

Your message has been delivered to the following recipients:

Linero, Alvaro

Holtom, Jonathan

Scearce, Lynn

Anderson, Lennon

Subject: FLORIDA POWER & LIGHT COMPANY - MARTIN POWER PLANT; 0850001-026-AC

Sent by Microsoft Exchange Server 2007

Friday, Barbara

From: Holtom, Jonathan
To: Friday, Barbara
Sent: Tuesday, August 23, 2011 12:27 PM
Subject: Read: FLORIDA POWER & LIGHT COMPANY - MARTIN POWER PLANT; 0850001-026-AC

Your message was read on Tuesday, August 23, 2011 12:26:56 PM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Linero, Alvaro
To: Friday, Barbara
Sent: Tuesday, August 23, 2011 12:10 PM
Subject: Read: FLORIDA POWER & LIGHT COMPANY - MARTIN POWER PLANT; 0850001-026-AC

Your message was read on Tuesday, August 23, 2011 12:10:03 PM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Scearce, Lynn
To: Friday, Barbara
Sent: Tuesday, August 23, 2011 11:52 AM
Subject: Read: FLORIDA POWER & LIGHT COMPANY - MARTIN POWER PLANT; 0850001-026-AC

Your message was read on Tuesday, August 23, 2011 11:52:26 AM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Microsoft Exchange
To: Wong, Robert
Sent: Tuesday, August 23, 2011 11:38 AM
Subject: Delivered: FLORIDA POWER & LIGHT COMPANY - MARTIN POWER PLANT; 0850001-026-AC

Your message has been delivered to the following recipients:

Wong, Robert

Subject: FLORIDA POWER & LIGHT COMPANY - MARTIN POWER PLANT; 0850001-026-AC

Sent by Microsoft Exchange Server 2007