



# 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

The Florida Power & Light Company (FPL)  
19050 State Road 62  
Parrish, Florida 34219-9220

Air Permit No. 0810010-016-AC

Expires: December 31, 2014

FPL Manatee Power Plant

Installation of Electrostatic Precipitators on Units 1 and 2

Facility ID No. 0810010

Manatee County

Authorized Representative:

Mr. Paul Plotkin, Manatee Plant General Manager

## PROJECT AND LOCATION

This is the final air construction permit authorizing the installation of two Electrostatic Precipitators (ESP) on fossil fuel steam generator Units 1 and 2 at the FPL Manatee Power Plant to replace the current cyclones used to control particulate matter (PM) and particulate matter with a mean diameter of 10 microns or less (PM<sub>10</sub>) emissions from the units. This project will decrease visible emissions (VE) and PM/PM<sub>10</sub> emissions from the units. The existing Manatee Power Plant is categorized under Standard Industrial Classification (SIC) No. 4911 for electrical services. The Manatee Power Plant is located at 19050 State Road 62 in Parrish, Manatee County, Florida. The UTM coordinates for this site are Zone 17; 367.15 kilometers (km) East and 3,054.23 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); and Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations which are defined in Appendix CF of Section 4 of this 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 and as described in the application, approved drawings, plans, and other documents on file with the Department. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

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

Jeffery F. Koerner  
(Signature)

6-20-11  
(Date)

Jeffery F. Koerner  
(Printed Name of Above Designee)

### CERTIFICATE OF SERVICE

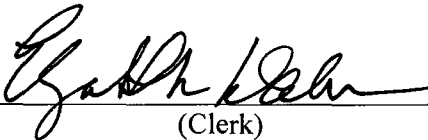
The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit with Appendices) was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on June 20, 2011 to the persons listed below.

Mr. Paul Plotkin, FPL, Plant Manager  
Ms. Rachel Godino, FPL  
Mr. Ken Kosky, PE, Golder Associates  
Ms. Cindy Zhang-Torres, PE, DEP  
Ms. Vickie Gibson, DEP for Read File

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Clerk Stamp

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

  
(Clerk)

6/20/11  
(Date)

## SECTION 1. GENERAL INFORMATION (DRAFT PERMIT)

### FACILITY AND PROJECT DESCRIPTION

The project is to construct two ESP on fossil fuel steam generator Units 1 and 2 at the Manatee Power Plant. The existing cyclones used to control PM/PM<sub>10</sub> emissions from the units will be removed and replaced by the ESP. In addition, to handle the additional fly ash collected by the ESP, a fly ash handling, storage and shipment system including two storage silos will be installed. Finally, as part of the ESP installation, foundations for ancillary pollution control equipment will be installed. The plant is proactively installing the ESP to meet the emission limits in the proposed 40 Code of Federal Regulations (CFR) 63, Subpart UUUUU - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Coal- and Oil-Fired Electric Utility Steam Generating Units. The additional foundations are being installed at this time should ancillary control equipment be necessary for additional emission reductions. A review pursuant to the rules for Prevention of Significant Deterioration (PSD) and a determination of Best Available Control Technology (BACT) pursuant to Rule 62-212.400, F.A.C. were not required.

This project involves the installation of ESP to control PM/PM<sub>10</sub> emissions on the following existing emissions units (EU) at the Manatee Power Plant:

EU ID No.	EU Description
001	Nominal 800 megawatt (MW) fossil fueled fired steam electric generator Unit 1
002	Nominal 800 MW fossil fueled fired steam electric generator Unit 2

In addition, as a result of this project one new EU is created:

EU ID No.	EU Description
012	Fly ash handling, storage and shipment system

### 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 is subject to the provisions of the Clean Air Interstate Rule (CAIR), including applicable portions of Chapters 62-204, 62-210 and 62-296, F.A.C.
- The facility is subject to Chapter 62-204.800, F.A.C for New Source Performance Standards (NSPS) under Section 111 of the CAA and NESHAP under Section 112 of the CAA.

## SECTION 2. ADMINISTRATIVE REQUIREMENTS (DRAFT PERMIT)

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1. Permitting Authority: The permitting authority for this project is the Bureau of Air Regulation, Division of Air Resource Management, Florida Department of Environmental Protection (Department). The Bureau of Air Regulation's 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 same office.
2. Compliance Authority: All documents related to compliance activities such as reports, tests and notifications shall be submitted to the Air Resource Section of the Department's Southwest District Office at 13051 N. Telecom Parkway, Temple Terrace, Florida 33637. The telephone number of the district office is 813/632-7600.
3. Appendices: The following Appendices are attached as part of this permit and must be complied with by the permittee:
  - a. Appendix A: Identification of General Provisions - NSPS 40 CFR 60, Subpart A and NESHAP 40 CFR 63, Subpart A;
  - b. Appendix CC: Common Conditions;
  - c. Appendix CF: Citation Formats and Glossary of Common Terms;
  - d. Appendix CTR: Common Testing Requirements; and
  - e. Appendix GC: General 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. Title V Permit: Unless specifically modified by this permit, the facility is subject to all of the requirements specified in its current Title V Air Operation Permit (DEP File No. 0110036-014-AV). This permit authorizes specific modifications and/or new construction on the affected emissions units as well as initial operation to determine compliance with conditions of this permit. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after completing the required work and commencing operation (both units). 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.]

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT PERMIT)

#### A. Fossil Fuel Fired Steam Electric Generators, Units 1 and 2 (EU 001 and 002)

The specific conditions in this section apply to the following EU(s):

EU ID No	EU Description
001	Fossil fuel fired steam electric generator, Unit 1
002	Fossil fuel fired steam electric generator, Unit 2

Fossil fuel fired steam electric generator Units 1 and 2 are each nominal 800 MW (900 MW gross capacity) electric steam generators designated as Manatee Plant Unit 1 and Unit 2. Both are fired on a variable combination of natural gas, No. 6 fuel oil, No. 2 fuel oil, propane, and used oil from FPL operations. Propane is utilized primarily for ignition of the main fuel. When firing fuel oil (or combinations of authorized fuels), the maximum heat input for each boiler is 8,650 million British thermal units per hour (mmBtu/hr). When firing natural gas alone, the maximum heat input for each boiler is 5,670 mmBtu/hr. Each EU consists of a boiler which drives a turbine generator. Emissions are currently controlled with multiple cyclones, a flue gas recirculation system, reburn and staged combustion. A continuous opacity monitoring system (COMS) is installed on each unit pursuant to 40 CFR Part 75.

#### EQUIPMENT

1. ESP: The permittee is authorized to construct a Siemens Environmental Systems & Services (or equivalent) rigid frame type ESP for each EU to replace the cyclones currently used to control PM/PM<sub>10</sub> emissions. Each ESP will have the following approximate design specifications: a residence time of 8.4 seconds; a specific collection area of 209 square feet per 1,000 actual cubic feet per minute of flue gas flow; and 3,096 collection plates.  
[Application No. 0810010-016-AC; Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]
2. Ancillary Pollution Control Equipment: Foundations for ancillary pollution control equipment are authorized to be installed as part of this project. The ancillary pollution control equipment may be required in the future to meet new federally mandated pollutant emission limits. [Application No. 0810010-016-AC]
3. Circumvention: When a unit is firing oil, the permittee shall not circumvent the ESP or allow the emission of air pollutants without this equipment operating properly per the manufacturers operating instructions.  
[Rule 62-210.650, F.A.C.]

#### EMISSIONS STANDARDS

4. Normal Opacity Limit: During normal operation, VE shall be not exceed 20 percent (%) opacity as determined by COMS or EPA Method 9.  
[Application No. 0810010-016-AC; Rules 62-4.070(3), 62-297.310(7)(c), F.A.C.]
5. Opacity Limit During Soot Blowing and Load Change: VE shall not exceed 40% opacity as determined by COMS or EPA Method 9 during the 3-hours in any 24 hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.
  - (a) A load change occurs when the operational capacity of a unit is in the 10% to 100% capacity range, other than startup or shutdown, which exceeds 10% of the unit's rated capacity and which occurs at a rate of 0.5% per minute or more.
  - (b) VE above 40% opacity shall be allowed for not more than four, 6-minute periods, during the 3-hour period of excess emissions allowed by this condition.[Application No. 0810010-016-AC; Rules 62-4.070(3), 62-297.310(7)(c), and 62-212.400(5)(c), F.A.C.]
6. Normal PM/PM<sub>10</sub> Emissions Limit: During normal operation, PM/PM<sub>10</sub> emissions shall not exceed 0.03 pounds per mmBtu of heat input (lb/mmBtu).  
[Application No. 0810010-016-AC and Rule 62-296.405(1)(b), F.A.C.]

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT PERMIT)

#### A. Fossil Fuel Fired Steam Electric Generators, Units 1 and 2 (EU 001 and 002)

7. PM/PM<sub>10</sub> Emissions Limit During Soot Blowing and Load Change: PM/PM<sub>10</sub> emissions shall not exceed 0.10 lb/mmBtu during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. [Application No. 0810010-016-AC and Rule 62-210.700(3), F.A.C.].

#### UNIT TUNING AFTER ESP INSTALLATION

8. Excess Emissions: After installation of an ESP on a fossil fuel steam generator unit, excess emissions are allowed for that unit for a total of 300 hours while the unit is tuned to meet the NO<sub>x</sub> and CO emission limits specified in the Title V Air Operation Permit (DEP File No. 0810010-014-AV). Tuning must be completed within 30 operating days for each unit once tuning commences. [Applicant's Request and Rule 62-210.700(5), F.A.C.]

#### TESTING AND MONITORING REQUIREMENTS

9. Initial Compliance Tests: The stack associated with each EU shall be tested to demonstrate initial compliance with the emissions standards for VE given in **Specific Conditions 4 and 5** of this subsection and the emissions standards for PM/PM<sub>10</sub> given in **Specific Conditions 6 and 7** of this subsection. The initial tests shall be conducted within 60 days after achieving permitted capacity, but not later than 180 days after initial operation of the EU after installation of the ESP. [Rules 62-4.070(3) and 62-297.310(7)(a)1, F.A.C.]
10. Annual Compliance Tests: During each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>), the stack associated with each EU shall be tested to demonstrate compliance with the emissions standards for VE given in **Specific Conditions 4 and 5** of this subsection and the emissions standards for PM/PM<sub>10</sub> given in **Specific Conditions 6 and 7** of this subsection. [Rules 62-4.070(3) and 62-297.310(7)(a)4, F.A.C.]
11. Operating Conditions During VE and PM/PM<sub>10</sub> Testing: When required, testing for VE and PM/PM<sub>10</sub> shall be conducted while firing No. 6 fuel oil at the maximum allowable rate of 8,650 mmBtu/hr, except as provided below. VE and PM/PM<sub>10</sub> emissions shall be conducted under both soot blowing and non-soot blowing conditions, and shall be conducted while injecting additives consistent with normal operating practices. Testing may be conducted while firing No. 6 fuel oil at less than 90% of the maximum allowable rate; however, subsequent EU operation is limited as described in Appendix TR of the facility's Title V Air Operations Permit (DEP File No. 0810010-014-AV). [Rules 62-4.070(3) and 62-213.440 F.A.C.]
12. Test Requirements: The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Tests shall be conducted in accordance with the applicable requirements specified in Appendix CTR (Common Testing Requirements) of this permit. [Rule 62-297.310(7)(a)9, F.A.C.]
13. Test Methods: Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
EPA 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA 5, 5B or 17	Method for Determining Particulate Matter Emissions (All PM is assumed to be PM <sub>10</sub> .)
EPA 9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in Appendix A of 40 CFR 60 which is included as Appendix A of this permit and is adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.

[Rules 62-204.800 and 62-297.100, F.A.C.; Appendix A of 40 CFR 60]

#### RECORDS AND REPORTS

14. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the

### **SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT PERMIT)**

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#### **A. Fossil Fuel Fired Steam Electric Generators, Units 1 and 2 (EU 001 and 002)**

requirements specified in Appendix CTR (Common Testing Requirements) of this permit. For each test run, the report shall also indicate the operating rate. [Rule 62-297.310(8), F.A.C.]

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT PERMIT)

#### B. Ash Handling, Storage and Shipment System (EU-012)

This section of the permit addresses the following new EU.

EU ID No.	Emission Unit Description
012	Fly ash handling, storage and shipment system

The design maximum process throughput rates of fly ash resulting from the installation of the ESP are 2,120 pounds per hour (lb/hr) equating to 9,285 TPY of fly ash from each fossil fueled fired steam electric generator unit. The fly ash will be stored in two silos each with a storage volume of approximately 6,500 cubic feet (ft<sup>3</sup>). PM emissions from each silo during loading will be controlled by a baghouse (bin vent filter). The fly ash will be off loaded to trucks to be transported off site. Approximately two trucks per storage silo per day will be used to transport the fly ash off site. Fugitive emissions during truck loading will be controlled by a water spray system. The maximum moisture content of the fly ash off loaded to the trucks is expected to be approximately 30%.

#### EQUIPMENT

1. Equipment: The permittee is authorized to construct an ash handling, storage and shipment system EU. The fly ash handling and storage equipment, including both storage silos, shall have a maximum design transfer rate of approximately 2.12 tons per hour (TPH) with a maximum annual design transfer rate of approximately 18,570 TPY. The overall ash handling, storage and shipment system (EU-012) shall have a maximum design transfer rate of approximately 66 tons per day (TPD) and approximately 24,100 TPY. This EU will consist of the following major equipment components:
  - a. Fly Ash Handling: The fly ash handling equipment will consist of totally enclosed hoppers and drop points associated with the collection and transfer of fly ash from the ESP used to control PM emissions from EU 001 and 002 to the storage silos. The fly ash handling equipment will be pneumatic.
  - b. Fly Ash Storage: The fly ash storage equipment will consist of two storage silos and associated baghouses to control PM emissions.
  - c. Pug Mill: A pug mill or its equivalent will be installed to stabilize the fly ash with water before loading into covered trucks for shipment off site. The pug mill will include a water spray system to control fugitive PM emissions while off loading the fly ash to the covered trucks.
  - d. Fly Ash Shipment: The fly ash shipment equipment will consist of the drop points and chutes associated with the transfer of the fly ash from the storage silo to trucks.[Application No. 0810010-016-AC]
2. Air Pollution Control Equipment: To comply with the emission standards of this subsection, the permittee shall install and operate the following air pollution control equipment on the fly ash handling, storage and shipment system EU.
  - a. Fly Ash Conveying System: To the extent practicable, the fly ash conveying system shall be confined and enclosed. If the final design specifies the installation of baghouses to control fugitive dust from fly ash transfer points, drop points, hoppers and chutes, the baghouses shall be designed to achieve a dust outlet loading of 0.015 grains per dry standard cubic foot (gr/dscf). [Rules 62-4.070 and 62-210.200(PTE), F.A.C.]
  - b. Fly Ash Storage Silos: Two bin vent filter baghouses (or equivalent) shall be designed, installed and maintained to remove PM from the fly ash storage silos exhaust during loading operations. The baghouses shall be installed and operational before the silos become operational. The baghouses shall be designed to achieve a dust outlet loading of 0.015 gr/dscf. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT PERMIT)

#### B. Ash Handling, Storage and Shipment System (EU-012)

- c. *Final Design*: Depending on the final equipment selection, the permittee may demonstrate to the Permitting Authority that the final baghouse design specification is equivalent to a dust outlet loading of 0.015 gr/dscf.

#### PERFORMANCE RESTRICTION

3. Hours of Operation: The hours of operation of this EU are not limited (i.e., unrestricted at 8,760 hours per year). [Application No. 0810010-016-AC and Rule 62-210.200(PTE), F.A.C.]

#### EMISSIONS STANDARDS

4. Baghouse Opacity Limit: As determined by EPA Method 9, VE from each baghouse shall not exceed 5% opacity. [Application No. 0810010-016-AC; Rules 62-210.650 and 62-4.070(3) F.A.C.]

#### TESTING AND MONITORING REQUIREMENTS

5. Operating Conditions During VE Testing: When required, testing for VE from the baghouse vents (silo and fly ash handling system) shall be conducted while firing No. 6 fuel oil and operating at 80% or more of the maximum heat input rate (8,650 mmBtu/hour).  
[Rules 62-4.070(3) and 62-213.440 F.A.C.]
6. Initial Compliance Tests: The baghouses associated with this EU shall be tested to demonstrate initial compliance with the opacity standard specified in **Specific Condition 4** of this subsection. The initial tests shall be conducted within 180 days after initial operation.  
[Rules 62-297.310(7)(a)1., F.A.C. and 62-4.070(3), F.A.C.]
7. Renewal Compliance Tests: Prior to obtaining a renewed Title V Air Operation permit, each baghouse associated with this EU shall be tested to demonstrate compliance with the opacity standard specified in **Specific Condition 4** of this subsection. [Rules 62-297.310(7)(a)4, and 62-4.070(3), F.A.C.]
8. Test Methods: Any required tests shall be performed in accordance with the following methods.

Method	Description of Method and Comments
EPA 9	Method 9 - Visual Determination of the Opacity of Emissions from Stationary Sources, 30 Minute Duration

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

#### RECORDS AND REPORTS

9. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix CTR (Common Testing Requirements) of this permit. For each test run, the report shall also indicate the operating rate. [Rule 62-297.310(8), F.A.C.]
10. Baghouse Records: The permittee shall maintain records of the baghouse design specification for the outlet dust loading limit of 0.015 gr/dscf or an equivalent as approved by the Permitting Authority. Replacement bags shall meet this design specification. [Rules 62-210.650 and 62-4.070(3) F.A.C.]

## **FINAL DETERMINATION**

### **Air Construction Permit**

Florida Power and Light Company  
Installation of Electrostatic Precipitators (ESP) on Units 1 and 2  
DEP File No. 0810010-016-AC

#### **PERMITTEE**

The Florida Power & Light Company (FPL)  
19050 State Road 62  
Parrish, Florida 34219-9220

#### **PERMITTING AUTHORITY**

Florida Department of Environmental Protection (Department)  
Division of Air Resource Management  
Bureau of Air Regulation  
2600 Blair Stone Road, MS #5505  
Tallahassee, Florida 32399-2400

#### **PROJECT**

Project No. 0810010-016-AC  
FPL Manatee Power Plant  
Installation of ESP on Units 1 and 2  
Manatee County

The project involves the installation of two ESP on fossil fuel steam generator Units 1 and 2 at the FPL Manatee Power Plant to replace the current cyclones used to control particulate matter (PM) and particulate matter with a mean diameter of 10 microns or less (PM<sub>10</sub>) emissions from the units. This project will decrease visible emissions (VE) and PM/PM<sub>10</sub> emissions from the units.

#### **NOTICES AND PUBLICATION**

FPL submitted an air construction permit application on May 9, 2011. On May 27, 2011, the Department gave notice of its intent to issue an air permit to the applicant for the project. The applicant published the Public Notice of Intent to Issue Air Permit for the project on June 3, 2011 in The Bradenton Herald.

#### **COMMENTS FROM FPL REGARDING THE DRAFT AIR PERMIT**

Two comments on the draft permit were received from FPL on June 17, 2011. The requested changes from FPL along with the rationale for the changes are paraphrased below along with the Department's response.

- *In the second to last sentence of the first paragraph in Section 3A - Fossil Fuel Fired Steam Electric Generators, Units 1 and 2 (EU 001 and 002), please add the term "reburn" to the list of emission controls currently in place at the Manatee Plant.*

*Response:* The Department agrees with the rationale for this change and will add the term "reburn" as requested.

- *In the second to last sentence of Condition 1 in Section 3B - Ash Handling, Storage and Shipment System (EU-012), please correct the design transfer rates. According to Table 7 of the Air Construction permit application, the total throughput rate is 33 tons per day (TPD) per unit, and therefore 66 TPD and 24,100 tons per year.*

*Response:* The Department agrees with the rationale for these changes and will adjust the throughput rates accordingly.



#### **CONCLUSION**

The final action of the Department is to issue the final permit reflecting the draft permit with the minor changes discussed above.

## Memorandum

# Florida Department of Environmental Protection

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TO: Jeff Koerner   
FROM: David Read   
DATE: June 20, 2011  
SUBJECT: DEP File No. 0810010-016-AC  
Florida Power and Light Company (FPL) Manatee Power Plant  
Installation of Electrostatic Precipitators (ESP) on Units 1 and 2

Attached for your review is the Final Air Construction Permit package for the FPL Manatee Power Plant to install ESPs on fossil fuel steam generator Units 1 and 2. The Manatee Power Plant is located in Manatee County at 19050 State Road 62 in Parrish, Florida.

This project is not subject to the rules for the Prevention of Significant Deterioration. Day 90 is August 7, 2011. We recommend your approval of the attached final permit package.

Attachments

TLV/jk/dlr

## SECTION 4. APPENDICES

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### CONTENTS

Appendix A:	Identification of General Provisions - NSPS 40 CFR 60, Subpart A and NESHAP 40 CFR 63, Subpart A;
Appendix CC:	Common Conditions;
Appendix CF:	Citation Formats and Glossary of Common Terms;
Appendix CTR:	Common Testing Requirements; and
Appendix GC:	General Conditions.

## SECTION 4. APPENDIX A

### NSPS AND NESHAP SUBPARTS A – GENERAL PROVISIONS

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The provisions of these Subparts may be provided in full upon request. The owner or operator shall comply with all applicable provisions of 40 CFR 60, Subpart A and 40 CFR 63, Subpart A, which is available at the following links:

[40 CFR 60, Subpart A](#)

[40 CFR 63, Subpart A](#)

#### **NSPS - SUBPART A, IDENTIFICATION OF GENERAL PROVISIONS**

The provisions of this Subpart may be provided in full upon request. Emissions units subject to a New Source Performance Standard of 40 CFR 60 are also subject to the applicable requirements of Subpart A, the General Provisions, including:

- § 60.1 Applicability.
- § 60.2 Definitions.
- § 60.3 Units and abbreviations.
- § 60.4 Address.
- § 60.5 Determination of construction or modification.
- § 60.6 Review of plans.
- § 60.7 Notification and Record Keeping.
- § 60.8 Performance Tests.
- § 60.9 Availability of information.
- § 60.10 State Authority.
- § 60.11 Compliance with Standards and Maintenance Requirements.
- § 60.12 Circumvention.
- § 60.13 Monitoring Requirements.
- § 60.14 Modification.
- § 60.15 Reconstruction.
- § 60.16 Priority List.
- § 60.17 Incorporations by Reference.
- § 60.18 General Control Device Requirements.
- § 60.19 General Notification and Reporting Requirements.

Individual subparts may exempt specific equipment or processes from some or all of these requirements. The general provisions may be provided in full upon request.

#### **NESHAP - SUBPART A, IDENTIFICATION OF GENERAL PROVISIONS**

The provisions of this Subpart may be provided in full upon request. Emissions units subject to a National Emission Standards for Hazardous Air Pollutants of 40 CFR 63 are also subject to the applicable requirements of Subpart A, the General Provisions, including:

- § 63.1 Applicability.
- § 63.2 Definitions.

**SECTION 4. APPENDIX A**  
**NSPS AND NESHAP SUBPARTS A – GENERAL PROVISIONS**

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- § 63.3 Units and abbreviations.
- § 63.4 Prohibited Activities and Circumvention.
- § 63.5 Preconstruction Review and Notification Requirements.
- § 63.6 Compliance with Standards and Maintenance Requirements.
- § 63.7 Performance Testing Requirements.
- § 63.8 Monitoring Requirements.
- § 63.9 Notification Requirements.
- § 63.10 Recordkeeping and Reporting Requirements.
- § 63.11 Control Device Requirements.
- § 63.12 State Authority and Delegations.
- § 63.13 Addresses of State Air Pollution Control Agencies and EPA Regional Offices.
- § 63.14 Incorporation by Reference.
- § 63.15 Availability of Information and Confidentiality.

Individual subparts may exempt specific equipment or processes from some or all of these requirements. The general provisions may be provided in full upon request.

## SECTION 4. APPENDIX CC

### COMMON CONDITIONS

Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the Manatee Power Plant facility addressed by this permitting action.

#### 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: No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter. Reasonable precautions include the following: a) Paving and maintenance of roads, parking areas and

## SECTION 4. APPENDIX CC

### COMMON CONDITIONS

yards; b) Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing; c) Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities; d) Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent re-entrainment, and from buildings or work areas to prevent particulate from becoming airborne; e) Landscaping or planting of vegetation; f) Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter; g) Confining abrasive blasting where possible; and, h) Enclosure or covering of conveyor systems. In determining what constitutes reasonable precautions for a particular facility, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice. [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.
  - 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 or operator 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

## SECTION 4. APPENDIX CC

### COMMON CONDITIONS

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 flowmeter 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 f-factor, 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

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### COMMON CONDITIONS

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.
- 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.
  - (4) Beginning with 2007 annual emissions, emissions shall be computed in accordance with the

## SECTION 4. APPENDIX CC

### COMMON CONDITIONS

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provisions of subsection 62-210.370(2), F.A.C., for purposes of the annual operating report.

[RULE 62-210.370, F.A.C.]

## SECTION 4. APPENDIX CF

### CITATION FORMATS AND GLOSSARY OF COMMON TERMS

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#### 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 CFR 60.7]

Means: Title 40, Part 60, Section 7

#### GLOSSARY OF COMMON TERMS

° F: degrees Fahrenheit

acfm: actual cubic feet per minute

ARMS: Air Resource Management System  
(Department’s database)

BACT: best available control technology

Btu: British thermal units

CAM: compliance assurance monitoring

CEMS: continuous emissions monitoring system

cfm: cubic feet per minute

FPL Manatee Power Plant

ESP Installation on Units 1 and 2

Permit No. 0810010-016-AC

Manatee County

## SECTION 4. APPENDIX CF

### CITATION FORMATS AND GLOSSARY OF COMMON TERMS

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<b>CFR:</b> Code of Federal Regulations	<b>MW:</b> megawatt
<b>CO:</b> carbon monoxide	<b>NESHAP:</b> National Emissions Standards for Hazardous Air Pollutants
<b>COMS:</b> continuous opacity monitoring system	<b>NO<sub>x</sub>:</b> nitrogen oxides
<b>DEP:</b> Department of Environmental Protection	<b>NSPS:</b> New Source Performance Standards
<b>Department:</b> Department of Environmental Protection	<b>O&amp;M:</b> operation and maintenance
<b>dscfm:</b> dry standard cubic feet per minute	<b>O<sub>2</sub>:</b> oxygen
<b>EPA:</b> Environmental Protection Agency	<b>Pb:</b> lead
<b>ESP:</b> electrostatic precipitator (control system for reducing particulate matter)	<b>PM:</b> particulate matter
<b>EU:</b> emissions unit	<b>PM<sub>10</sub>:</b> particulate matter with a mean aerodynamic diameter of 10 microns or less
<b>F.A.C.:</b> Florida Administrative Code	<b>PSD:</b> prevention of significant deterioration
<b>F.D.:</b> forced draft	<b>psi:</b> pounds per square inch
<b>F.S.:</b> Florida Statutes	<b>PTE:</b> potential to emit
<b>FGR:</b> flue gas recirculation	<b>RACT:</b> reasonably available control technology
<b>F:</b> fluoride	<b>RATA:</b> relative accuracy test audit
<b>ft<sup>2</sup>:</b> square feet	<b>SAM:</b> sulfuric acid mist
<b>ft<sup>3</sup>:</b> cubic feet	<b>scf:</b> standard cubic feet
<b>gpm:</b> gallons per minute	<b>scfm:</b> standard cubic feet per minute
<b>gr:</b> grains	<b>SIC:</b> standard industrial classification code
<b>HAP:</b> hazardous air pollutant	<b>SNCR:</b> selective non-catalytic reduction (control system used for reducing emissions of nitrogen oxides)
<b>Hg:</b> mercury	<b>SO<sub>2</sub>:</b> sulfur dioxide
<b>I.D.:</b> induced draft	<b>TPH:</b> tons per hour
<b>ID:</b> identification	<b>TPY:</b> tons per year
<b>kPa:</b> kilopascals	<b>UTM:</b> Universal Transverse Mercator coordinate system
<b>lb:</b> pound	<b>VE:</b> visible emissions
<b>MACT:</b> maximum achievable technology	<b>VOC:</b> volatile organic compounds
<b>MMBtu:</b> million British thermal units	
<b>MSDS:</b> material safety data sheets	
<u>Application</u>	
<b>NWFRC:</b> Northwest Florida Renewable Energy Center	
<b>BIGCC:</b> biomass-fed integrated gasification combined cycle	
<b>BPG:</b> biomass product gas	
<b>HRSG:</b> heat recovery steam generators	
<b>CT:</b> combustion turbine-electrical generators	

## **SECTION 4. APPENDIX CF**

### **CITATION FORMATS AND GLOSSARY OF COMMON TERMS**

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**DB:** duct burners

**CEMS:** continuous emissions monitoring system

**COMS:** continuous opacity monitoring system

**SECTION 4. APPENDIX CTR**  
**COMMON TESTING REQUIREMENTS**

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Unless otherwise specified in the permit, the following testing requirements apply to all emissions units at the facility addressed by this permitting action.

**COMPLIANCE TESTING REQUIREMENTS**

1. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. [Rule 62-297.310(2), F.A.C.]
2. Applicable Test Procedures - Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
  - a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
  - b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
  - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

[Rule 62-297.310(4), F.A.C.]

3. Determination of Process Variables
  - a. *Required Equipment*. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
  - b. *Accuracy of Equipment*. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

4. Frequency of Compliance Tests: The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
  - a. *General Compliance Testing*.

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**SECTION 4. APPENDIX CTR**  
**COMMON TESTING REQUIREMENTS**

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1. The owner or operator of a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.
2. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision.

In renewing an air operation permit pursuant to sub-subparagraph 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- (a) Did not operate; or
  - (b) In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours,
3. During each federal fiscal year (October 1 – September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for visible emissions, if there is an applicable standard.
  4. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- b. *Special Compliance Tests.* When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

[Rule 62-297.310(7), F.A.C.]

**RECORDS AND REPORTS**

5. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report shall provide the following information.
  - a. The type, location, and designation of the emissions unit tested.
  - b. The facility at which the emissions unit is located.
  - c. The owner or operator of the emissions unit.
  - d. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
  - e. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
  - f. The date, starting time and end time of the observation.

**SECTION 4. APPENDIX CTR**  
**COMMON TESTING REQUIREMENTS**

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- g. The test procedures used.
- h. The names of individuals who furnished the process variable data, conducted the test, and prepared the report.
- i. The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit plus the test result in the same form and unit of measure.
- j. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

## SECTION 4. APPENDIX GC

### GENERAL CONDITIONS

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

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
  - a. Have access to and copy and records that must be kept under the conditions of the permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - a. A description of and cause of non-compliance; and
  - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

## SECTION 4. APPENDIX GC

### GENERAL CONDITIONS

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
  - a. Determination of Best Available Control Technology ( );
  - b. Determination of Prevention of Significant Deterioration ( ); and
  - c. Compliance with New Source Performance Standards ( ).
14. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - 1) The date, exact place, and time of sampling or measurements;
    - 2) The person responsible for performing the sampling or measurements;
    - 3) The dates analyses were performed;
    - 4) The person responsible for performing the analyses;
    - 5) The analytical techniques or methods used; and
    - 6) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.



June 16, 2011

Mr. Jeff Koerner  
Director of Division of Air Resource Management  
Florida Department of Environmental Protection  
3900 Commonwealth Boulevard, MS 48  
Tallahassee, FL 32399-3000

RECEIVED

JUN 17 2011

BUREAU OF  
AIR REGULATION

Dear Mr. Koerner:

Subject: FPL Manatee Plant, PA 02-44C  
Draft Air Construction Permit No. 0810010-016-AC  
Installation of Electrostatic Precipitators on Units 1 and 2

Please find FPL's comments on the draft air construction permit No. 0810010-016-AC and supporting Technical Evaluation and Preliminary Determination below:

**Comment 1. Section 3A of Draft Permit**

Please add reburn to the list of emissions controls that are currently in place at the Manatee Plant:

"Emissions are currently controlled with multiple cyclones, a flue gas recirculation system, reburn and staged combustion."

**Comment 2. Section 3B, Equipment of Draft Permit**

According to Table 7 in the Air Construction permit application, the total material throughput is 33 tons per day per unit, and therefore 66 tons per day for the project. Please adjust the equipment description as follows:

"The overall ash handling, storage and shipment system (EU-012) shall have a maximum design transfer rate of approximately ~~400~~ 66 tons per day (TPD) and approximately ~~36,500~~ 24,100 TPY."

**Comment 3: Facility Emission Units, Page TE-2 of Technical Evaluation**

Please add reburn to the list of emissions controls that are currently in place at the Manatee Plant:

"Each unit is equipped with multiple cyclones, a flue gas recirculation system, reburn and staged combustion to control emissions and also operates a Westinghouse tandem compound, reheat-type extraction turbine."

**Comment 4. Project Description, Page TE-2 of Technical Evaluation**

The end parentheses is missing in the first sentence of the project description:

"The project is to construct an ESP on each of fossil fuel steam generator Units 1 and 2 (EU 001 and 002)."

Thank you for your considering the comments. If you have any questions, please call me at (561) 691-7518 or Rachel Godino at (561) 676-7238.

Sincerely,

A handwritten signature in black ink, reading "Barbara P. Linkiewicz". The signature is written in a cursive style with a large, stylized 'B' and 'L'.

Barbara P. Linkiewicz  
Director of Environmental Licensing

Cc: David Read, DEP Air Resources  
Cindy Mulkey, DEP Siting Office  
Paul Plotkin, Manatee Plant Manager  
Ken Kosky, Golder Associates

## Walker, Elizabeth (AIR)

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**From:** Walker, Elizabeth (AIR)  
**Sent:** Monday, June 20, 2011 4:28 PM  
**To:** 'paul\_plotkin@fpl.com'  
**Cc:** 'rachel.godino@fpl.com'; 'ken\_kosky@golder.com'; Zhang-Torres; Gibson, Victoria; Koerner, Jeff; Read, David  
**Subject:** MANATEE POWER PLANT; 0810010-016-AC  
**Attachments:** 0810010-016-AC.pdf

Tracking:	Recipient	Delivery	Read
	'paul_plotkin@fpl.com'		
	'rachel.godino@fpl.com'		
	'ken_kosky@golder.com'		
	Zhang-Torres	Delivered: 6/20/2011 4:28 PM	
	Gibson, Victoria	Delivered: 6/20/2011 4:28 PM	Read: 6/20/2011 4:28 PM
	Koerner, Jeff	Delivered: 6/20/2011 4:28 PM	
	Read, David	Delivered: 6/20/2011 4:28 PM	

Dear Sir/ Madam:

Attached is the official **Notice of Final 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).*

Click on the following link to access the permit project documents:

[http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf\\_permit\\_zip\\_files/0810010.016.AC.F\\_pdf.zip](http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0810010.016.AC.F_pdf.zip)

Owner/Company Name: FLORIDA POWER and LIGHT (PMT)

Facility Name: MANATEE POWER PLANT

Project Number: 0810010-016-AC

Permit Status: FINAL

Permit Activity: CONSTRUCTION

Facility County: MANATEE

The Bureau of Air Regulation 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, Bureau of Air Regulation.

***Elizabeth Walker***

Bureau of Air Regulation

Division of Air Resource Management (DARM)

(850)717-9093

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>> .