STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF FINAL PERMIT

Electronically Sent – Received Receipt Requested.

In the Matter of an
Application for Permit by:

Florida Power and Light Company
19050 State Road 62
Parrish, Florida 34219-9220

DEP File No. 0810010-013-AC
Manatee Power Plant
Excess Emissions Modification

Authorized Representative:
Mr. Paul Plotkin, Plant General Manager

Enclosed is Final Air Construction Permit No. 0810010-013-AC that modifies the language of air construction permit 0810010-012-AC dealing with excess emissions for the Unit 3 combined cycle gas turbine system located at the Manatee Power Plant in Parrish, Manatee County. It also establishes these changes as applicable Title V air operation permit conditions. The facility is located at 19050 State Road 62, Parrish, Florida 34219-9220. This permit is issued pursuant to Chapter 403, Florida Statutes.

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 thirty (30) days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

Trina L. Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the "Final Permit") was sent by electronic mail (with received receipt requested), or a link to these documents available electronically on a publicly accessible server, before the close of business on _____ to the person(s) listed:

Mr. Paul Plotkin, Florida Power and Light Company: pplotkin@fpl.com
Ms. Sheila M. Wilkinson, Florida Power and Light Company: Sheila_Wilkinson@fpl.com
Mr. Kennard Kosky, Golder Associates: kkosky@golder.com
Ms. Katy Forney, U.S. EPA Region 4: forney.kathleen@epa.gov
Ms. Ana Oquendo, U.S. EPA Region 4: oquendo.ana@epamail.epa.gov
Ms. Mara Nasca, Southwest District Office: mara.nasca@dep.state.fl.us
Ms. Barbara Friday, DEP BAR: Barbara.Friday@dep.state.fl.us (for posting with U.S. EPA, Region 4)
Ms. Vickie Gibson, DEP BAR: Victoria.Gibson@dep.state.fl.us (read file copy)

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) 12/9/08 (Date)

Florida Department of Environmental Protection

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

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

PERMITTEE

Florida Power and Light Company
19050 State Road 62
Parrish, Florida 34219-9220

Authorized Representative:
Mr. Paul Plotkin, Plant General Manager

Air Permit No. 0810010-013-AC
Facility ID No. 0810010
SIC No. 4931
Excess Emissions Modification

Permit Expires: December 31, 2008

PROJECT AND LOCATION

This permit modifies the language of air construction permit 0810010-012-AC dealing with excess emissions for the Unit 3 combined cycle gas turbine system located at the Manatee Power Plant (the facility). The facility is located in Manatee County at 19050 State Road 62, Parrish, Florida 34219-9220.

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.) and Title 40, Parts 60 and 63 of the Code of Federal Regulations (CFR). The permittee is authorized to install the proposed equipment 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.

CONTENTS

Section 1. General Information
Section 2. Administrative Requirements
Section 3. Emissions Units Specific Conditions
Section 4. Appendices

Joseph Kahn, Director
Division of Air Resource Management

12/8/2008
(Date)

FACILITY AND PROJECT DESCRIPTION

This nominal 2,750 megawatt (MW) facility consists of two fossil fuel steam generators, a "4-on-1" gas-fired combined cycle unit and associated support equipment.

Fossil Fuel Steam Generators, Unit 1 and Unit 2: Each unit is a Foster-Wheeler Steam Generator rated at 800 MW (900 MW gross capacity) output. These units burn a variable combination of natural gas, No. 6 fuel oil, No. 2 fuel oil, propane, and used oil from Florida power and Light Company (FPL) operations, discharging pollutants through a stack 499 feet above ground level. Each unit is equipped with multiple cyclones, a flue gas recirculation system and staged combustion and also operates a Westinghouse tandem compound, reheat-type extraction turbine.

Combined Cycle Gas Turbine System, Unit 3: This unit consists of four ("4-on-1") nominal 170 MW General Electric Model PG7241(FA) gas-fired turbine-electrical generator sets with evaporative inlet cooling systems, an automated gas turbine control system, an inlet air filtration system, four 495 million British thermal units per hour (MMBtu/hr) supplementary-fired heat recovery steam generators (HRSG) with selective catalytic reduction (SCR) reactors, a single nominal 470 MW steam-electrical generator that serves all four gas turbine/HRSG systems, four 120 feet high exhaust stacks, and associated support equipment. The total generating capacity of the "4-on-1" combined cycle system Unit 3 is 1150 MW.

ID	Emission Unit Description
005	Unit 3A Gas Turbine (170 MW) with Heat Recovery Steam Generator (HRSG) (495 MMBtu/hr)
006	Unit 3B Gas Turbine (170 MW) with Heat Recovery Steam Generator (HRSG) (495 MMBtu/hr)
007	Unit 3C Gas Turbine (170 MW) with Heat Recovery Steam Generator (HRSG) (495 MMBtu/hr)
008	Unit 3D Gas Turbine (170 MW) with Heat Recovery Steam Generator (HRSG) (495 MMBtu/hr)

Both the current Title V air operation permit and underlying air construction (AC) permit have language concerning the combined cycle unit system that addresses excess emissions resulting from startup, shutdown, or documented malfunctions (i.e., imposes a limit of two hours in any 24-hour period per unit). The applicant has requested a change to allow more flexibility in cycling a specific turbine on or off during the same day to meet system demand load. However, in this AC action, we are recommending compromise language to avoid unlimited cycling up and down of a specific turbine during the period. This approach is described in the Technical Evaluation and Preliminary Determination document.

REGULATORY CLASSIFICATION

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

NESHAP: The facility does not operate units subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) in 40 Code of Federal Regulations (CFR) 63.

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

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 213, Florida Administrative Code (F.A.C.).

PSD: The facility is a Prevention of Significant Deterioration (PSD)-major stationary source in accordance with Rule 62-212.400, F.A.C.

RELEVANT DOCUMENTS

The following relevant documents are not a part of this permit, but helped form the basis for this permitting action: the permit application and additional information received to make it complete, the draft air construction permit, and the Technical Evaluation and Preliminary Determination.

1. Permitting Authority: The Permitting Authority for this project is the Bureau of Air Regulation in the Division of Air Resource Management of the Department. The mailing address for the Bureau of Air Regulation is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Southwest District Office. The mailing address and phone number of the Southwest District Office are: 13051 North Telecom Parkway, Temple Terrace, Florida 33637-0926, Telephone: 813/632-7600, Fax: 813/744-6084.

3. Appendices: The following Appendices are attached as part of this permit: Appendix GC (General Conditions); and Appendix C (Common State Regulatory Requirements).

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, 62-214, 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: No emissions unit shall be constructed or 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.]

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
005	Unit 3A Gas Turbine (170 MW) with Heat Recovery Steam Generator (HRSG) (495 MMBtu/hr)
006	Unit 3B Gas Turbine (170 MW) with Heat Recovery Steam Generator (HRSG) (495 MMBtu/hr)
007	Unit 3C Gas Turbine (170 MW) with Heat Recovery Steam Generator (HRSG) (495 MMBtu/hr)
008	Unit 3D Gas Turbine (170 MW) with Heat Recovery Steam Generator (HRSG) (495 MMBtu/hr)

{Permitting Note: The units remain subject to the applicable requirements of current Title V Air Operation Permit No. 0810010-011-AV.}

PREVIOUS APPLICABLE REQUIREMENTS

1. Other Permits: Specific Condition 2 of this permit replaces Specific Condition 16 in air construction permit 0810010-012-AC. [Rule 62-4.070, F.A.C.]

SECTION III PART A of 0810010-012-AC. Note: Double underline indicates additions.

2. Excess Emissions Allowed: As specified in this condition, excess emissions resulting from startup, shutdown, and documented malfunctions are allowed provided that operators employ the best operational practices to minimize the amount and duration of emissions during such incidents. A "documented malfunction" means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile transmittal, or electronic mail. For each gas turbine/HRSG system, excess emissions resulting from startup, shutdown, or documented malfunctions shall not exceed two hours in any 24-hour period (or shall not exceed eight hours per 4-unit site, with the additional provision of a limit of 2 startup periods per 24 hours per unit) except for the following specific cases.

a. *Steam Turbine Cold Startup*: For cold startup of the steam turbine system, excess emissions from any gas turbine/HRSG system shall not exceed eight (8) hours in any 24-hour period. Cold startup of the steam turbine system shall be completed within twelve hours. A cold "startup of the steam turbine system" is defined as startup of the 4-on-1 combined cycle system following a shutdown of the steam turbine lasting at least 48 hours. *{Permitting Note: During a cold startup of the steam turbine system, each gas turbine/HRSG system is sequentially brought on line at low load to gradually increase the temperature of the steam-electrical turbine and prevent thermal metal fatigue. Note that shutdowns and documented malfunctions are separately regulated in accordance with the requirements of this condition.}*

b. *Shutdown*: For shutdown of the steam turbine system, excess emissions from any gas turbine/HRSG system shall not exceed three (3) hours in any 24-hour period.

c. *Gas Turbine/HRSG System Cold Startup*: For cold startup of a gas turbine/HRSG system, excess emissions shall not exceed four (4) hours in any 24-hour period. "Cold startup of a gas turbine/HRSG system" is defined as a startup after the pressure in the high-pressure (HP) steam drum falls below 450 psig for at least a one-hour period.

Ammonia injection shall begin as soon as operation of the gas turbine/HRSG system achieves the operating parameters specified by the manufacturer. As authorized by Rule 62-210.700(5), F.A.C., the above conditions allow excess emissions only for specifically defined periods of startup, shutdown, and documented malfunction of the gas turbines. [Design; Rules 62-212.400(BACT) and 62-210.700, F.A.C.; Applicant's requests dated March 6, 2006, and July 3, 2008.]