

Department of Environmental Protection

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

David B. Struhs Secretary

July 25, 2003

Mr. Rudy Sanchez
Plant Manager and Responsible Official
Florida Power & Light Company
Environmental Services Department
P.O. Box 14000
Juno Beach, Florida 33408

Re:

PROPOSED Title V Permit Renewal No. 0110036-006-AV

Facility ID: 0110036 Port Everglades Plant

Dear Mr. Sanchez:

One copy of the "PROPOSED PERMIT RENEWAL DETERMINATION" for the Port Everglades Plant, located at 8100 Eisenhower Boulevard, Fort Lauderdale, Broward County, is enclosed. This letter is only a courtesy to inform you that the DRAFT permit renewal has become a PROPOSED permit renewal.

Pursuant to Section 403.0872(6), Florida Statutes, if no objection to the PROPOSED permit renewal is made by the U.S.EPA within 45 days, the PROPOSED permit renewal will become a FINAL permit renewal no later than 55 days after the date on which the PROPOSED permit renewal was mailed (posted) to U.S.EPA. If U.S.EPA has an objection to the PROPOSED permit renewal, the FINAL permit renewal will not be issued until the permitting authority receives written notice that the objection is resolved or withdrawn. If you have any questions, please contact Tom Cascio at 850/921-9526.

Sincerely, Luice L Viethaum

Trina Vielhauer, Chief Bureau of Air Regulation

Enclosures

Copy furnished to:

Mr. Kevin Washington, Florida Power & Light Company
Ms. Daniela Banu, Broward County Department of Planning and Environmental Protection
U.S.EPA, Region 4 (INTERNET E-mail Memorandum)

PROPOSED Permit Renewal Determination Florida Power & Light Company

Port Everglades Plant

Title V Permit Renewal No. 0110036-006-AV

I. Public Notice.

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" to the Florida Power & Light Company, for the Port Everglades Plant, located at 8100 Eisenhower Boulevard, Fort Lauderdale, Broward County, was clerked on June 5, 2003. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" was published in the Sun-Sentinel on June 18, 2003.

The DRAFT Title V Air Operation Permit Renewal was available for public inspection at the Broward County Department of Planning and Environmental Protection in Fort Lauderdale, and the permitting authority's office in Tallahassee. Proof of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" was received on June 23, 2003.

II. Public Comments.

Comments were received, but the DRAFT Title V Operation Permit Renewal was not reissued. The comments were not considered significant enough to reissue the DRAFT Title V Permit Renewal and require another Public Notice. The only comments received were from the applicant in a letter dated June 17, 2003, and received on June 20, 2003. Listed below is a response to the one significant comment in the letter. The comment is not restated.

No.	Permit Specific Condition Reference	Department Response
1	Section III, Specific Condition	The applicant requested the addition of an EPA test
	C.8.	method. The change was accepted, and the affected
		specific condition was changed in the PROPOSED
		permit.

III. Conclusion.

The permitting authority hereby issues PROPOSED Permit No. 0110036-006-AV, with the change reflected above.

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STATEMENT OF BASIS

Title V Permit Renewal No. 0110036-006-AV
Florida Power & Light Company
Port Everglades Plant
Broward County

This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit renewal.

This facility consists of four fossil fuel steam generators and twelve simple cycle combustion turbines. Fossil Fuel Steam Generators, Units 1 and 2, each rated at 225 MW, 2400 mmBtu/hr for natural gas and 2300 mmBtu/hr for number 6 fuel oil, are capable of burning any combination of natural gas, number 6 fuel oil, number 2 fuel oil, propane and on-specification used oil from FPL operations. The emissions are exhausted through a 344 ft. stack for each unit. Fossil Fuel Steam Generators, Units 3 and 4, each rated at 402 MW, 4180 mmBtu/hr for natural gas and 4000 mmBtu/hr for number 6 fuel oil, are capable of burning any combination of natural gas, number 6 fuel oil, number 2 fuel oil, propane and on-specification used oil from FPL operations. The emissions are exhausted through a 344 ft. stack for each unit. The twelve simple cycle gas turbines, GT1 through GT12, with a total capacity rated at 42 MW, 8424 mmBtu/hr, are capable of burning any combination of, number 2 fuel oil and natural gas, with emissions exhausted through twelve 44 ft. stacks.

Emissions Unit 1, Unit 2, Unit 3, and Unit 4 are regulated under Acid Rain, Phase II, and Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with more than 250 million Btu per Hour Heat Input. Fossil fuel fired steam generator Unit 1 began commercial operation in 1960 and fossil fuel fired steam generator Unit 2 began commercial operation in 1961. Fossil fuel fired steam generator Unit 3 began commercial operation in 1965 and fossil fuel fired steam generator Unit 4 began commercial operation in 1964. These emissions units may inject additives such as magnesium hydroxide and related compounds into each boiler.

This permit renewal includes the requirement to install electrostatic precipitators (ESPs) and flue gas temperature controls on all four existing fossil-fueled steam boilers at the facility. The project, permitted under 0110036-005-AC, includes the engineering, design, modeling, fabrication, assembly, erection, and optimization of the ESPs. The ESPs will replace the existing mechanical dust collectors, which shall either be removed or abandoned in place. Implementing this project will result in a significant decrease in both visible potential emissions and particulate matter potential emissions from the boilers.

Emissions Units GT1 through GT12 are regulated under Rule 62-210.300, F.A.C., Permits Required. These emissions units are not subject to 40 CFR 60, Subpart GG, Standards of Performance for New Stationary Gas Turbines. All turbines began commercial operation in 1971. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Based on the Title V permit renewal application received on April 24, 2003, this facility is a major source of hazardous air pollutants (HAPs).

Florida Power and Light Company
Port Everglades Plant
Facility ID No. 0110036
Broward County

Title V Air Operation Permit Renewal PROPOSED Permit No. 0110036-006-AV

Permitting Authority:

State of Florida
Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
Title V Section

Mail Station #5505 2600 Blair Stone Road Tallahassee, Florida 32399-2400

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

Title V Air Operation Permit Renewal PROPOSED Permit No. 0110036-006-AV

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Permittee:

Florida Power & Light Company Environmental Services Department P.O. Box 14000 Juno Beach, Florida 33408 PROPOSED Permit No. 0110036-006-AV Facility ID No. 0110036 SIC Nos.: 49, 4911

Project: Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V Air Operation Permit for the **Port Everglades Plant**. This facility is located at 8100 Eisenhower Boulevard, Fort Lauderdale, Broward County; UTM Coordinates: Zone 17, 587.38 km East and 2885.25 km North; Latitude: 26° 05' 08" North and Longitude: 80° 07' 31" West. This permit also incorporates the specific conditions of Air Construction Permit 011036-005-AC that authorized the installation of electrostatic precipitators (ESPs) and flue gas temperature controls on all four existing fossilfueled steam boilers of the facility.

This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit renewal. The facility holds ORIS code 0617 under Phase II of the Federal Acid Rain Program.

Referenced attachments made a part of this permit renewal:

Appendix U-1, List of Unregulated Emissions Units and/or Activities Appendix I-1, List of Insignificant Emissions Units and/or Activities Appendix TV-4, Title V Conditions (version dated 02/12/02) Appendix SS-1, Stack Sampling Facilities (version dated 10/07/96) Table 297.310-1, Calibration Schedule (version dated 10/07/96) Phase II Acid Rain Part Application renewal form received 04/24/03 Alternate Sampling Procedure: ASP Number 97-B-01 Orders Granting Petition for Reduced Frequency of Particulate Testing

Effective Date: January 1, 2004

Renewal Application Due Date: July 5, 2008

Expiration Date: December 31, 2008

Joseph Kahn, P.E., Acting Director, Division of Air Resource Management Florida Power and Light Company Port Everglades Plant

Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of four fossil fuel steam generators and twelve simple cycle combustion turbines.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Based on the Title V permit renewal application received on April 24, 2003, this facility is a major source of hazardous air pollutants (HAPs).

Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U. ID			
No.	Brief Description		
001	Fossil Fuel Steam Generator, Unit 1, rated at 225 MW, 2400 mmBtu/hr for natural		
	gas and 2300 mmBtu/hr for number 6 fuel oil, capable of burning any combination		
	of natural gas, number 6 fuel oil, number 2 fuel oil, propane and on-specification		
	used oil from FPL operations, with emissions exhausted through a 344 ft. stack.		
002	Fossil Fuel Steam Generator, Unit 2, rated at 225 MW, 2400 mmBtu/hr for natural		
	gas and 2300 mmBtu/hr for number 6 fuel oil, capable of burning any combination		
	of natural gas, number 6 fuel oil, number 2 fuel oil, propane and on-specification		
	used oil from FPL operations, with emissions exhausted through a 344 ft. stack.		
003	Fossil Fuel Steam Generator, Unit 3, rated at 402 MW, 4180 mmBtu/hr for natural		
	gas and 4000 mmBtu/hr for number 6 fuel oil, capable of burning any combination		
	of natural gas, number 6 fuel oil, number 2 fuel oil, propane and on-specification		
	used oil from FPL operations, with emissions exhausted through a 344 ft. stack.		
004	Fossil Fuel Steam Generator, Unit 4, rated at 402 MW, 4180 mmBtu/hr for natural		
	gas and 4000 mmBtu/hr for number 6 fuel oil, capable of burning any combination		
	of natural gas, number 6 fuel oil, diesel fuel, propane and on-specification used oil		
	from FPL operations, with emissions exhausted through a 344 ft. stack.		
005	12 Simple Cycle Gas Turbines, GT1 through GT12, with a total capacity rated at		
	504 MW, 8424 mmBtu/hr, capable of burning any combination of, number 2 fuel		
	oil and natural gas, with emissions exhausted through twelve 44 ft. stacks.		

Unregula	ted Emissions Units and/or Activities		
017	Above ground fuel oil storage tanks		
018	018 Miscellaneous internal combustion engines and portable equipment		

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Florida Power and Light Company Port Everglades Plant

Subsection C. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:
Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers
Appendix H-1, Permit History/ID Number Changes
Table 1-1, Summary of Air Pollutant Standards and Terms
Table 2-1, Summary of Compliance Requirements

These documents are on file with the permitting authority:
Title V Permit Renewal Application received on April 24, 2003.
DRAFT Title V Air Operation Permit Renewal clerked on June 5, 2003.
Letter from the applicant received on June 20, 2003.

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

- 1. Appendix TV-4, Title V Conditions, is a part of this permit. {Permitting note: Appendix TV-4, Title V Conditions, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}
- 2. Not Federally Enforceable. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.]
- 3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
 [Rule 62-296.320(4)(b)1. & 4, F.A.C.]
- 4. Prevention of Accidental Releases (Section 112(r) of CAA).
- a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center Post Office Box 3346 Merrifield, VA 22116-3346 Telephone: 703/816-4434

and,

- **b.** The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C. [40 CFR 68]
- 5. <u>Unregulated Emissions Units and/or Activities.</u> Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit. [Rule 62-213.440(1), F.A.C.]
- 6. <u>Insignificant Emissions Units and/or Activities.</u> Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit. [Rules 62-213.440(1), 62-213.430(6), and 62-4.040(1)(b), F.A.C.]
- 7. Not Federally Enforceable. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to 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. The owner or operator shall:

- a. Tightly cover or close all VOC or OS containers when they are not in use.
- b. Tightly cover all open tanks which contain VOC or OS when they are not in use.
- c. Maintain all pipes, valves, fittings, etc., which handle VOC or OS in good operating condition.
- d. Immediately confine and clean up VOC or OS spills and make sure wastes are placed in closed containers for reuse, recycling or proper disposal.

[Rule 62-296.320(1)(a), F.A.C.]

- 8. Not Federally Enforceable. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility shall include:
 - a. The facility shall construct temporary sandblasting enclosures when necessary, in order to perform sandblasting on fixed plant equipment.
 - b. Maintenance of paved areas shall be performed as needed.
 - c. Regular mowing of grass and care of vegetation shall be performed.
 - d. Access to plant property by unnecessary vehicles shall be limited.
 - e. Bagged chemical products shall be stored in weather-tight buildings until they are used.
 - f. Spills of powdered chemical products shall be cleaned up as soon as practicable.
 - g. Vehicles shall be restricted to slow speeds on the plant site.

[Rule 62-296.320(4)(c)2., F.A.C.; and proposed by applicant in the Title V permit renewal application received on April 24, 2003.]

- 9. When appropriate, any recording, monitoring or reporting requirements that are time-specific shall be in accordance with the effective date of this permit, which defines day one. [Rule 62-213.440, F.A.C.]
- 10. <u>Statement of Compliance</u>. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C. [Rules 62-213.440(3) and 62-213.900, F.A.C.]

{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of Appendix TV-4, Title V Conditions).}

11. <u>Submittals</u>. All reports, tests, notifications or other submittals required by this permit shall be submitted to the Broward County Department of Planning and Environmental Protection, Air Quality Division, and copies of those submittals shall be sent to the Department of Environmental Protection, Southeast District Office, Air Section. Addresses and telephone numbers are:

Broward County Department of Planning and Environmental Protection Air Quality Division 218 SW 1st Avenue Ft. Lauderdale, FL 33301 Phone: 954/519-1220

Florida Power and Light Company Port Everglades Plant

Department of Environmental Protection Southeast District Office, Air Section P.O. Box 15425 West Palm Beach, FL 33416

Phone: 561/681-6600

Any reports, data, notifications, certifications and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air & EPCRA Enforcement Branch, Air Enforcement Section
61 Forsyth Street
Atlanta, GA 30303

Phone: 404/562-9155

Fax: 404/562-9163 or 404/562-9164

12. <u>Certification by Responsible Official (RO)</u>. In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.

[Rule 62-213.420(4), F.A.C.]

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions unit(s).

E.U. ID	
No.	Brief Description
001	Fossil Fuel Steam Generator, Unit 1
002	Fossil Fuel Steam Generator, Unit 2

Fossil fuel fired steam generators Unit 1 and Unit 2 are each 225 MW (electric) steam generators. The emissions units are fired on a variable combination of No. 6 fuel oil, No. 2 fuel oil, natural gas, propane, and on-specification used oil from FPL operations. When firing fuel oil, the maximum heat input for each boiler is 2300 mmBtu per hour, and when firing natural gas or propane, the maximum heat input for each boiler is 2400 mmBtu per hour.

Each emissions unit consists of a boiler that drives a turbine generator. Emissions are controlled with low NOx burners, and multiple cyclones for particulate matter (for the period 1/01/04 through 10/31/05 for Unit 001, and period 1/01/04 through 4/01/05 for Unit 002). Electrostatic precipitators shall replace the multiple cyclones beyond these dates. Each unit is equipped with a 344-foot stack. Following the construction and installation of the ESPs at the facility, these emissions units will be subject to Compliance Assurance Monitoring (CAM) for those control devices. See Specific Condition A.15.1.

{Permitting note(s): These emissions units are regulated under Acid Rain, Phase II; and Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input. Fossil fuel fired steam generator Unit 1 began commercial operation in 1960 and fossil fuel fired steam generator Unit 2 began commercial operation in 1961. These emissions units may inject additives such as magnesium hydroxide and related compounds into each boiler.}

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

A.1. <u>Permitted Capacity</u>. The maximum operation heat input rates are as follows:

Unit No.		mmBtu/hr Heat Input*	Fuel Type	
	1	2400	Natural Gas, Propane	
		2300	No. 2 or 6 Fuel Oil	
2		2400 Natural Gas, Propane		
		2300	No. 2 or 6 Fuel Oil	

^{*}When a blend of fuel oil and natural gas or propane is burned, the heat input is prorated based upon the percent heat input of each fuel.

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.405, F.A.C.]

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability.}

A.2. Emissions Unit Operating Rate Limitation After Testing. Emissions units may be limited to the operating rate or conditions tested. See Specific Conditions **D.14.** and **A.15.** of this permit.

[Rule 62-297.310(2), F.A.C.]

A.3. Methods of Operation. Fuels. The only fuels allowed to be burned are any combination of No. 6 fuel oil, No. 2 fuel oil, natural gas, propane, and on-specification used oil from FPL operations.

[Rule 62-213.410, F.A.C.]

Emission Limitations and Standards

{Permitting note: Unless otherwise specified, the averaging times for Specific Conditions A.4.1. through A.9. are based on the specified averaging time of the applicable test method.}

A.4.1. Visible Emissions – Steady State Operation (effective 01/01/04 through 5/31/06 for Unit 001, and 01/01/04 through 10/31/05 for Unit 002). Visible emissions shall not exceed 40 percent opacity. Emissions units governed by this visible emissions standard shall conduct a compliance test for visible emissions annually using EPA Reference Method 9.

[Rule 62-296.405(1)(a), F.A.C.; and Order dated January 2, 1986 (Unit 1), and OGC Case No. 83-0578, Order dated April 24, 1984 (Unit 2).]

- A.4.2. Visible Emissions Steady State Operation (effective 6/01/06 for Unit 001, and 11/01/05 for Unit 002). Visible emissions shall not exceed 20 percent opacity. Emissions units governed by this visible emissions standard shall conduct a compliance test for visible emissions annually using EPA Reference Method 9. [0110036-005-AC, Specific Condition A.16.]
- A.5.1. <u>Visible Emissions Soot Blowing and Load Change (effective 01/01/04 through 5/31/06 for Unit 001, and 01/01/04 through 10/31/05 for Unit 002)</u>. Visible emissions shall not exceed 60 percent opacity during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.

Visible emissions above 60 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emissions allowed by this condition.

Note: these units have operational continuous opacity monitors. [Rule 62-210.700(3), F.A.C.]

A.5.2. <u>Visible Emissions -- Soot Blowing and Load Change (effective 6/01/06 for Unit 001, and 11/01/05 for Unit 002)</u>. Visible emissions shall not exceed 40 percent opacity during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.

Visible emissions above 40 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emissions allowed by this condition.

Note: these units have operational continuous opacity monitors. [Rule 62-210.700(3), F.A.C.; and 0110036-005-AC, Specific Condition A.17.]

- **A.6.1.** Particulate Matter Steady State Operation (effective 01/01/04 through 5/31/06 for Unit 001, and 01/01/04 through 10/31/05 for Unit 002). Particulate matter emissions shall not exceed 0.1 pound per million Btu heat input, as measured by applicable compliance methods. [Rule 62-296.405(1)(b), F.A.C.]
- A.6.2. Particulate Matter Steady State Operation (effective 6/01/06 for Unit 001, and 11/01/05 for Unit 002). Particulate matter emissions shall not exceed 0.03 pound per million Btu heat input, as measured by applicable compliance methods.

 [0110036-005-AC, Specific Condition A.18.]
- A.7.1. Particulate Matter Soot Blowing and Load Change (effective 01/01/04 through 5/31/06 for Unit 001, and 01/01/04 through 10/31/05 for Unit 002). Particulate matter emissions shall not exceed an average of 0.3 pound per million Btu heat input during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. [Rule 62-210.700(3), F.A.C.]
- A.7.2. Particulate Matter -- Soot Blowing and Load Change (effective 6/01/06 for Unit 001, and 11/01/05 for Unit 002). Particulate matter emissions shall not exceed an average of 0.1 pound per million Btu heat input during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. [0110036-005-AC, Specific Condition A.19.]
- A.8. <u>Sulfur Dioxide</u>. Sulfur dioxide emissions shall not exceed 2.75 pounds per million Btu heat input, as measured by applicable compliance methods. Compliance shall be based on the total heat input from all liquid and gaseous fuels burned. The sulfur dioxide emission limitation shall apply at all times including startup, shutdown, and load change. See Specific Condition A.11.

[Rules 62-213.440 and 62-296.405(1)(c)1.j., F.A.C.]

A.9. <u>Nitrogen Oxides</u>. Nitrogen oxides emissions shall not exceed 0.20 pounds per million Btu while firing natural gas, and 0.36 pounds per million Btu while firing oil. Compliance shall be demonstrated based on a 30-day rolling average as measured by a continuous emissions monitoring system (CEMS). The CEMS must meet the performance specifications contained in 40 CFR 60, Appendix B, or 40 CFR 75. [Rules 62-296.570(4)(a)4. and (4)(b)1., F.A.C.]

Monitoring of Operations

- **A.10.** Annual Tests Required, PM and VE. Except as provided in specific conditions **D.6** and **D.7** of this permit, emission testing for particulate emissions and visible emissions shall be performed annually, no later than September 30th of each year, except for units that are not operating because of scheduled maintenance outages and emergency repairs, which will be tested within thirty days of returning to service.
- [Rules 62-4.070(3) and 62-213.440, F.A.C.]
- **A.11.** Sulfur Dioxide. The owner or operator of the emission units shall demonstrate compliance with the sulfur dioxide limit of specific condition **A.8** of this permit by the following:
 - a. Through the use of a continuous emission monitoring system (CEMS) installed, calibrated, operated and maintained in accordance with the quality assurance requirements of 40 CFR 75, adopted and incorporated by reference in Rule 62-204.800,

- F.A.C. A Relative Accuracy Test Audit of the SO₂ CEMS shall be conducted no less than annually. Compliance shall be demonstrated based on a 3-hour rolling average.
- b. In the event the CEMS becomes temporarily inoperable or interrupted, the fuels and the maximum fuel oil to natural gas firing ratio that shall be used is limited to that which was last used to demonstrate compliance prior to the loss of the CEMS, or the emissions units shall fuel switch and be fired with a fuel oil containing a maximum sulfur content of 2.5%, by weight, or less.
- c. When burning 100% fuel oil, the emissions units shall be fired with a fuel oil containing a maximum sulfur content of 2.5%, by weight, or less.

[Rules 62-213.440, 62-204.800 and 62-296.405(1)(c)3., F.A.C.]

Test Methods and Procedures

- A.12. <u>Testing While Injecting Additives</u>. The owner or operator shall conduct emission tests while injecting additives consistent with normal operating practices. [Rule 62-213.440, F.A.C., applicant agreement with EPA on March 3, 1998]
- A.13. Particulate Matter. The test methods for particulate emissions shall be EPA Methods 17, 5, 5B, or 5F, incorporated by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen based F-factor, computed according to EPA Method 19, is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17. Particulate testing shall be conducted in accordance with the requirements of specific conditions D.14 and A.15 of this permit. [Rules 62-213.440, 62-296.405(1)(e)2., and 62-297.401, F.A.C.]
- A.14. <u>Sulfur Dioxide</u>. The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedences of the sulfur dioxide emissions limiting standard are occurring. The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, the permittee shall demonstrate compliance using CEMS for sulfur dioxide. See specific condition A.11 of this permit.

[Rules 62-213.440 and 62-296.405(1)(c)3. and (1)(e)3., F.A.C.]

- **A.15.** Operating Conditions During Testing PM and VE. Compliance testing during sootblowing and steady-state operation for particulate matter and visible emissions shall be conducted at least once annually, if liquid fuel is fired for more than 400 hours. A visible emissions test shall be conducted during one run of each particulate matter test. Testing shall be conducted as follows:
- a. When Burning 100% Fuel Oil. Particulate matter and visible emissions tests during sootblowing and steady-state operation shall be performed on such emissions unit while firing solely fuel oil of less than or equal to 2.5% sulfur by weight (stoichiometrically representative of sulfur dioxide emissions of the SO₂ emission limit of 2.75 lb/mmBtu), except that such test shall not be required to be performed during any year that testing is performed in accordance with specific condition A.15.b.
- b. When Burning Fuel Oil While Co-firing With Natural Gas. Particulate matter and visible emissions tests during sootblowing and steady-state operation shall be performed on such

emissions unit while co-firing oil with the appropriate proportion of natural gas required to maintain SO₂ emissions below the emission limit of 2.75 lb/mmBtu heat input. Test Required if Target SO₂ Emission Rate Increased. Following successful completion of such PM and VE testing, further PM and VE testing shall not be required during the next 12 months unless fuel oil is fired that contains greater than 0.20% sulfur above the percentage sulfur concentration fired during the most recent co-firing test. If fuel oil is co-fired containing greater than 0.20% sulfur above the percentage sulfur concentration fired during the most recent co-firing test, additional PM and VE tests shall be performed as described above as soon as practicable, but in no event more than 60 days after firing such higher sulfur fuel oil. [Rules 62-4.070(3), 62-213.440, 62-296.405(1)(c)3. and 62-297.310(7)(a)9., F.A.C., Request of applicant; Administrative Correction 0110036-002-AV.]

Compliance Assurance Monitoring (CAM) Requirements

A.15.1. Following the construction and installation of the ESPs at the facility, these emissions units will be subject to Compliance Assurance Monitoring (CAM) for those control devices. Therefore, six months following the completion of construction the permittee shall request a revision to this permit to include the requirements for the proposed CAM plan. [40 CFR 64; and Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

Recordkeeping and Reporting Requirements

- A.16. Fuel Records. The owner or operator shall create and maintain for each emission unit hourly records of the amount of each fuel fired, the ratio of fuel oil to natural gas if co-fired, and the heating value and sulfur content of each fuel fired. These records must be of sufficient detail to identify the testing requirements of Specific Condition A.15., and, when applicable, demonstrate compliance with the requirements of Specific Condition A.11., paragraphs b and c, of this permit. Fuel oil heating value and sulfur content shall be determined by taking a daily sample of the fuel fired, combining those samples into a monthly composite, and analyzing a representative sample of the composite. Analysis for sulfur content shall be performed using one of ASTM D2622-94, ASTM D4294-90(95), ASTM D1552-95, ASTM D1266-91, both ASTM D4057-88 and ASTM D129-95, or the latest edition(s). Comparison of the as-fired fuel oil sulfur content shall be made and recorded monthly upon receipt of each monthly composite analysis. [Rules 62-4.070(3), 62-213.410, 62-213.440 and 62-296.405(1)(c)3., F.A.C.]
- **A.17.** COMS for Periodic Monitoring. The owner or operator is required to install continuous opacity monitoring systems (COMS) pursuant to 40 CFR Part 75. The owner or operator shall maintain and operate COMS and shall make and maintain records of opacity measured by the COMS, for purposes of periodic monitoring.

[Rule 62-213.440, F.A.C., and applicant agreement with EPA on March 3, 1998]

Other Conditions

A.18. These emissions units are also subject to Specific Conditions D.1. through D.20., contained in Subsection D., Common Conditions.

Subsection B. This section addresses the following emissions unit(s).

E.U. ID		
No.	Brief Description	
003	Fossil Fuel Steam Generator, Unit 3	
004	Fossil Fuel Steam Generator, Unit 4	

Fossil fuel fired steam generators Unit 3 and Unit 4 are each 402 MW (electric) steam generators. The emissions units are fired on a variable combination of No. 6 fuel oil, No. 2 fuel oil, natural gas, propane, and on-specification used oil from FPL operations. When firing fuel oil, the maximum heat input for each boiler is 4000 mmBtu per hour, and when firing natural gas or propane, the maximum heat input for each boiler is 4180 mmBtu per hour. Each emissions unit consists of a boiler which drives a turbine generator. Emissions are controlled with low NOx burners and multiple cyclones for particulate matter (for the period 1/01/04 through 10/31/07 for Unit 003, and period 1/01/04 through 5/31/07 for Unit 004). Electrostatic precipitators shall replace the multiple cyclones beyond these dates. Each unit is equipped with a 344-foot stack. Following the construction and installation of the ESPs at the facility, these emissions units will be subject to Compliance Assurance Monitoring (CAM) for those control devices. See Specific Condition B.15.1.

{Permitting note(s): These emissions units are regulated under Acid Rain, Phase II; and Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input. Fossil fuel fired steam generator Unit 3 began commercial operation in 1965, and fossil fuel fired steam generator Unit 4 began commercial operation in 1964. These emissions units may inject additives such as magnesium hydroxide and related compounds into each boiler.}

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum operation heat input rates are as follows:

Unit No.	mmBtu/hr Heat Input*	Fuel Type
3	4180	Natural Gas, Propane
	4000	No. 2 or 6 Fuel Oil
4	4180	Natural Gas, Propane
	4000	No. 2 or 6 Fuel Oil

^{*}When a blend of fuel oil and natural gas or propane is burned, the heat input is prorated based upon the percent heat input of each fuel.

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.405, F.A.C.]

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability.}

B.2. Emissions Unit Operating Rate Limitation After Testing. Emissions units may be limited to the operating rate or conditions tested. See Specific Conditions **D.14**. and **B.15**. of this permit.

[Rule 62-297.310(2), F.A.C.]

B.3. Methods of Operation. Fuels. The only fuels allowed to be burned are any combination of No. 6 fuel oil, No. 2 fuel oil, natural gas, propane, and on-specification used oil from FPL operations.

[Rule 62-213.410, F.A.C.]

Emission Limitations and Standards

{Permitting note: Unless otherwise specified, the averaging times for Specific Conditions **B.4.1.** through **B.9.** are based on the specified averaging time of the applicable test method.}

- **B.4.1.** Visible Emissions Steady State Operation (effective 01/01/04 through 10/31/07 for Unit 003, and 01/01/04 through 05/31/07 for Unit 004). Visible emissions shall not exceed 40 percent opacity. Emissions units governed by this visible emissions standard shall conduct a compliance test for visible emissions annually using EPA Reference Method 9. [Rule 62-296.405(1)(a), F.A.C.; and OGC Case No. 83-0577 & 83-0576, Order dated April 24, 1984.]
- **B.4.2.** <u>Visible Emissions Steady State Operation (effective 11/01/07 for Unit 003, and 06/01/07 for Unit 004)</u>. Visible emissions shall not exceed 20 percent opacity. Emissions units governed by this visible emissions standard shall conduct a compliance test for visible emissions annually using EPA Reference Method 9. [0110036-005-AC, Specific Condition A.16.]
- **B.5.1.** Visible Emissions Soot Blowing and Load Change (effective 01/01/04 through 10/31/07 for Unit 003, and 01/01/04 through 05/31/07 for Unit 004). Visible emissions shall not exceed 60 percent opacity during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.

Visible emissions above 60 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emissions allowed by this condition.

Note: these units have operational continuous opacity monitors. [Rule 62-210.700(3), F.A.C.]

B.5.2. Visible Emissions – Soot Blowing and Load Change (effective 11/01/07 for Unit 003, and 06/01/07 for Unit 004). Visible emissions shall not exceed 40 percent opacity during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.

Visible emissions above 40 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emissions allowed by this condition.

Note: these units have operational continuous opacity monitors. [Rule 62-210.700(3), F.A.C.; and 0110036-005-AC, Specific Condition A.17.]

- **B.6.1.** Particulate Matter Steady State Operation (effective 01/01/04 through 10/31/07 for Unit 003, and 01/01/04 through 05/31/07 for Unit 004). Particulate matter emissions shall not exceed 0.1 pound per million Btu heat input, as measured by applicable compliance methods. [Rule 62-296.405(1)(b), F.A.C.]
- **B.6.2.** Particulate Matter Steady State Operation (effective 11/01/07 for Unit 003, and 06/01/07 for Unit 004). Particulate matter emissions shall not exceed 0.03 pound per million Btu heat input, as measured by applicable compliance methods. [0110036-005-AC, Specific Condition A.18.]
- **B.7.1.** Particulate Matter Soot Blowing and Load Change (effective 01/01/04 through 10/31/07 for Unit 003, and 01/01/04 through 05/31/07 for Unit 004). Particulate matter emissions shall not exceed an average of 0.3 pound per million Btu heat input during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

[Rule 62-210.700(3), F.A.C.]

- **B.7.2.** Particulate Matter Soot Blowing and Load Change (effective 11/01/07 for Unit 003, and 06/01/07 for Unit 004). Particulate matter emissions shall not exceed an average of 0.1 pound per million Btu heat input during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. [0110036-005-AC, Specific Condition A.19.]
- **B.8.** Sulfur Dioxide. Sulfur dioxide emissions shall not exceed 2.75 pounds per million Btu heat input, as measured by applicable compliance methods. Compliance shall be based on the total heat input from all liquid and gaseous fuels burned. The sulfur dioxide emission limitation shall apply at all times including startup, shutdown, and load change. See Specific Condition **B.11.**

[Rules 62-213.440 and 62-296.405(1)(c)1.j., F.A.C.]

B.9. Nitrogen Oxides. Nitrogen oxides emissions shall not exceed 0.40 pounds per million Btu while firing natural gas, and 0.53 pounds per million Btu while firing oil. Compliance shall be demonstrated based on a 30-day rolling average as measured by a CEMS. The CEMS must meet the performance specifications contained in 40 CFR 60, Appendix B, or 40 CFR 75. [Rules 62-296.570(4)(a)4. and (4)(b)2., F.A.C.]

Monitoring of Operations

- **B.10.** Annual Tests Required, PM and VE. Except as provided in Specific Conditions **D.6.** and **D.7.** of this permit, emission testing for particulate emissions and visible emissions shall be performed annually, no later than September 30th of each year, except for units that are not operating because of scheduled maintenance outages and emergency repairs, which will be tested within thirty days of returning to service.
- [Rules 62-4.070(3) and 62-213.440, F.A.C.]
- **B.11.** Sulfur Dioxide. The owner or operator of the emission units shall demonstrate compliance with the sulfur dioxide limit of Specific Condition **B.8.** of this permit by the following:
 - a. Through the use of a continuous emission monitoring system (CEMS) installed, calibrated, operated and maintained in accordance with the quality assurance requirements of 40 CFR 75, adopted and incorporated by reference in Rule 62-204.800,

- F.A.C. A Relative Accuracy Test Audit of the SO₂ CEMS shall be conducted no less than annually. Compliance shall be demonstrated based on a 3-hour rolling average.
- b. In the event the CEMS becomes temporarily inoperable or interrupted, the fuels and the maximum fuel oil to natural gas firing ratio that shall be used is limited to that which was last used to demonstrate compliance prior to the loss of the CEMS, or the emissions units shall fuel switch and be fired with a fuel oil containing a maximum sulfur content of 2.5%, by weight, or less.
- c. When burning 100% fuel oil, the emissions units shall be fired with a fuel oil containing a maximum sulfur content of 2.5%, by weight, or less.

[Rules 62-213.440, 62-204.800 and 62-296.405(1)(c)3., F.A.C.]

Test Methods and Procedures

- **B.12.** <u>Testing While Injecting Additives</u>. The owner or operator shall conduct emission tests while injecting additives consistent with normal operating practices. [Rule 62-213.440, F.A.C., applicant agreement with EPA on March 3, 1998]
- **B.13.** Particulate Matter. The test methods for particulate emissions shall be EPA Methods 17, 5, 5B, or 5F, incorporated by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen based F-factor, computed according to EPA Method 19, is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17. Particulate testing shall be conducted in accordance with the requirements of specific conditions **D.14** and **B.15** of this permit. [Rules 62-213.440, 62-296.405(1)(e)2., and 62-297.401, F.A.C.]
- **B.14.** Sulfur Dioxide. The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedences of the sulfur dioxide emissions limiting standard are occurring. The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, the permittee shall demonstrate compliance using CEMS for sulfur dioxide. See specific condition B.11 of this permit.

 [Rules 62-213.440 and 62-296.405(1)(c)3. and (1)(e)3., F.A.C.]
- **B.15.** Operating Conditions During Testing PM and VE. Compliance testing during sootblowing and steady-state operation for particulate matter and visible emissions shall be conducted at least once annually, if liquid fuel is fired for more than 400 hours. A visible emissions test shall be conducted during one run of each particulate matter test. Testing shall be conducted as follows:
- a. When Burning 100% Fuel Oil. Particulate matter and visible emissions tests during sootblowing and steady-state operation shall be performed on such emissions unit while firing solely fuel oil of less than or equal to 2.5% sulfur by weight (stoichiometrically representative of sulfur dioxide emissions of the SO₂ emission limit of 2.75 lb/mmBtu), except that such test shall not be required to be performed during any year that testing is performed in accordance with specific condition **B.15.b.**

b. When Burning Fuel Oil While Co-firing With Natural Gas. Particulate matter and visible emissions tests during sootblowing and steady-state operation shall be performed on such emissions unit while co-firing oil with the appropriate proportion of natural gas required to maintain SO₂ emissions below the emission limit of 2.75 lb/mmBtu heat input. Test Required if Target SO₂ Emission Rate Increased. Following successful completion of such PM and VE testing, further PM and VE testing shall not be required during the next 12 months unless fuel oil is fired that contains greater than 0.20% sulfur above the percentage sulfur concentration fired during the most recent co-firing test. If fuel oil is co-fired containing greater than 0.20% sulfur above the percentage sulfur concentration fired during the most recent co-firing test, additional PM and VE tests shall be performed as described above as soon as practicable, but in no event more than 60 days after firing such higher sulfur fuel oil. [Rules 62-4.070(3), 62-213.440, 62-296.405(1)(c)3. and 62-297.310(7)(a)9., F.A.C., Request of applicant; Administrative Correction 0110036-002-AV.]

Compliance Assurance Monitoring (CAM) Requirements

B.15.1. Following the construction and installation of the ESPs at the facility, these emissions units will be subject to Compliance Assurance Monitoring (CAM) for those control devices. Therefore, six months following the completion of construction the permittee shall request a revision to this permit to include the requirements for the proposed CAM plan. [40 CFR 64; and Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

Recordkeeping and Reporting Requirements

- **B.16.** Fuel Records. The owner or operator shall create and maintain for each emission unit hourly records of the amount of each fuel fired, the ratio of fuel oil to natural gas if co-fired, and the heating value and sulfur content of each fuel fired. These records must be of sufficient detail to identify the testing requirements of specific condition **B.15**, and, when applicable, demonstrate compliance with the requirements of condition **B.11**, paragraphs b and c, of this permit. Fuel oil heating value and sulfur content shall be determined by taking a daily sample of the fuel fired, combining those samples into a monthly composite, and analyzing a representative sample of the composite. Analysis for sulfur content shall be performed using one of ASTM D2622-94, ASTM D4294-90(95), ASTM D1552-95, ASTM D1266-91, both ASTM D4057-88 and ASTM D129-95, or the latest edition(s). Comparison of the as-fired fuel oil sulfur content shall be made and recorded monthly upon receipt of each monthly composite analysis. [Rules 62-4.070(3), 62-213.410, 62-213.440 and 62-296.405(1)(c)3., F.A.C.]
- **B.17.** COMS for Periodic Monitoring. The owner or operator is required to install continuous opacity monitoring systems (COMS) pursuant to 40 CFR Part 75. The owner or operator shall maintain and operate COMS and shall make and maintain records of opacity measured by the COMS, for purposes of periodic monitoring.

 [Rule 62-213.440, F.A.C., and applicant agreement with EPA on March 3, 1998]

Other Conditions

B.18. These emissions units are also subject to Specific Conditions **D.1.** through **D.20.**, contained in **Subsection D.**, **Common Conditions**.

Subsection C. This section addresses the following emissions unit(s).

E.U	U. ID	
	No.	Brief Description
	005	12 Simple Cycle Gas Turbines, GT1 through GT12

Emissions unit 005 consists of 12 simple cycle gas turbines (GT1 through GT12) manufactured by Pratt & Whitney, with a total capacity rated at 504 MW, 8424 mmBtu/hr. The emissions units are fired on any combination of No. 2 fuel oil and natural gas. Each turbine unit consists of two turbine engines which drive a turbine generator. Emissions are uncontrolled. Each unit is equipped with a 44-foot stack. The turbines are regulated collectively as one emission unit.

{Permitting notes: These emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required. These emissions units are *not subject* to 40 CFR 60, Subpart GG, Standards of Performance for New Stationary Gas Turbines. All turbines began commercial operation in 1971.}

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

C.1. Permitted Capacity. The maximum operation heat input rates are as follows:

Unit No.	mmBtu/hr Heat Input*	Fuel Type	
GT1 through GT12	8424	Natural Gas	
	8424	No. 2 Fuel Oil	

^{*}Total heat input for all twelve combustion turbines.

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.405, F.A.C.]

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability.}

C.2. <u>Emissions Unit Operating Rate Limitation After Testing</u>. See Specific Condition **D.14**. of this permit.

[Rule 62-297.310(2), F.A.C.]

C.3. Methods of Operation. Fuels. The only fuels allowed to be burned are any combination of No. 2 fuel oil and natural gas.
[Rule 62-213.410, F.A.C.]

Emission Limitations and Standards

{Permitting note: Unless otherwise specified, the averaging times for Specific Conditions C.4. and C.5. are based on the specified averaging time of the applicable test method.}

C.4. <u>Visible Emissions</u>. Visible emissions from each turbine shall not be equal to or greater than 20 percent opacity.

[Rule 62-296.320(4)(b)1., F.A.C.]

C.5. <u>Nitrogen Oxides</u>. Nitrogen oxides emissions shall not exceed 0.50 pounds per million Btu while firing natural gas, and 0.90 pounds per million Btu while firing oil. [Rules 62-296.570(4)(b)5., F.A.C.]

Monitoring of Operations

C.6. <u>Visible Emissions Testing Required</u>. The owner or operator shall conduct testing for visible emissions, using EPA Method 9, while the combustion turbine is operating at 90-100 percent of its capacity, according to the following schedule.

The owner or operator shall conduct testing for visible emissions while firing fuel oil for each simple-cycle turbine unit upon that turbine's exceeding 400 hours of operation on fuel oil, and every 150 hours of operation on fuel oil thereafter, in any given federal fiscal year (October 1 through September 30). Such tests shall be performed within 15 days of exceeding such operating hours, to allow for prior notification of the tests.

[Rule 62-213.440, F.A.C.; applicant agreement with EPA on March 3, 1998; and AO 06-230618.]

C.7. <u>Nitrogen Oxides</u>. Provided operation is no more than 320 hours/year/turbine on oil, NOx emissions for the combustion turbines shall be tested every five (5) years by EPA Method 20 tests as described in 40 CFR 60, Appendix A (July 1, 1996) on any representative unit in the bank of the combustion turbines. Tests shall be conducted both while burning 100% natural gas and 100% light distillate oil.

[Rule 62-296.570, F.A.C.; and requested by the applicant in a letter dated September 19, 2000.]

Test Methods and Procedures

C.8. <u>Nitrogen Oxides</u>. The test method for nitrogen oxides emissions shall be EPA Method 20, or EPA Method 7E, incorporated by reference in Chapter 62-297, F.A.C. If the owner or operator obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall automatically become a condition of this permit.

[Rules 62-213.440, 62-296.570(4)(a)3., 62-297.401, F.A.C.; and applicant request.]

Recordkeeping and Reporting Requirements

C.9. Records of Fuel Consumption and Operating Time Required. The owner or operator shall make and maintain records of the hours of operation of each turbine and the total fuel oil consumption of all twelve turbines in sufficient detail to ensure compliance with Specific Condition C.6. of this permit.

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

Other Conditions

C.10. These emissions units are also subject to Specific Conditions D.1. through D.19., contained in Subsection D., Common Conditions. Specific Condition D.20. is not applicable to these emission units.

Subsection D. Common Conditions.

E.U. ID			
No.	Brief Description		
001	Fossil Fuel Steam Generator, Unit 1.	,	
002	Fossil Fuel Steam Generator, Unit 2.		
003	Fossil Fuel Steam Generator, Unit 3.		
004	Fossil Fuel Steam Generator, Unit 4.		
005	12 Simple Cycle Gas Turbines, GT1 through GT12.		

The following conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

D.1. Hours of Operation. The emissions units may operate continuously, i.e., 8,760 hours/year.

[Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Excess Emissions

- **D.2.** Excess emissions resulting from malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
- **D.3.** Excess emissions resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized. [Rule 62-210.700(2), F.A.C.]
- **D.4.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

D.5. Determination of Process Variables.

(a) <u>Required Equipment</u>. 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.]

- **D.6.** <u>Frequency of Compliance Tests</u>. 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.
 - 2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.
 - 3. 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 Rule 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 fuel for a total of no more than 400 hours.
 - 4. 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:
 - a. Visible emissions, if there is an applicable standard;
 - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 100 tons per year or more of any other regulated air pollutant; and
 - c. Each NESHAP pollutant, if there is an applicable emission standard.
 - 5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
 - 8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
 - 9. 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) <u>Special Compliance Tests</u>. 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 may 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.

- (c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply. [Rule 62-297.310(7), F.A.C., SIP Approved]
- **D.7.** When PM Tests Not Required. Annual and permit renewal compliance testing for particulate matter emissions is not required for these emissions units while burning:
 - a. only gaseous fuel(s); or
 - b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
- c. only liquid fuel(s) for less than 400 hours per year. [Rules 62-297.310(7)(a)3. & 5., F.A.C.; and, ASP Number 97-B-01.]
- **D.8.** When VE Tests Not Required. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:
 - a. only gaseous fuel(s); or
 - b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
- c. only liquid fuel(s) for less than 400 hours per year. [Rule 62-4.070(3), F.A.C.]

Test Methods and Procedures

{Permitting Note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

- **D.9.** <u>Visible Emissions Turbines</u>. The test method for visible emissions for emissions unit 005 (bank of twelve combustion turbines) shall be EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. [Rules 62-204.800 and 62-297.401, F.A.C.]
- **D.10.** Visible Emissions Boilers, Units 1, 2, 3 and 4. The test method for visible emissions for emissions units 001 (Unit 1), 002 (Unit 2), 003 (Unit 3) and 004 (Unit 4) shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. A transmissometer may be used and calibrated according to Rule 62-297.520, F.A.C. See Specific Condition **D.11**. [Rules 62-296.405(1)(e)1. and 62-297.401, F.A.C.]
- **D.11.** <u>DEP Method 9</u>. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:
 - 1. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.

- 2. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:
 - a. For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.
 - b. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value. [Rule 62-297.401, F.A.C.]

D.12. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

- **D.13.** Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
- **D.14.** Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions 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.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

D.15. Applicable Test Procedures.

- (a) Required Sampling Time.
 - 1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
 - 2. 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:
 - 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.
- (b) <u>Minimum Sample Volume</u>. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
- (c) <u>Required Flow Rate Range</u>. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) <u>Calibration of Sampling Equipment</u>. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.
- (e) <u>Allowed Modification to EPA Method 5</u>. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.]
- **D.16.** Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. [Rule 62-297.310(6), F.A.C.]

Recordkeeping and Reporting Requirements

- **D.17.** Malfunctions Notification. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Broward County Department of Planning and Environmental Protection, Air Quality Division, in accordance with Rule 62-4.130, F.A.C. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its 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 Department rules. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Broward County Department of Planning and Environmental Protection, Air Quality Division. [Rule 62-210.700(6), F.A.C.]
- **D.18.** Excess Emissions Report. Submit to the Broward County Department of Planning and Environmental Protection, Air Quality Division, a written report of emissions in excess of emission limiting standards as set forth in this permit, for each calendar quarter. The nature and

cause of the excess emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations.

[Rules 62-213.440 and 62-296.405(1)(g), F.A.C.]

D.19. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Broward County Department of Planning and Environmental Protection, Air Quality Division, on the results of each such test.
- (b) The required test report shall be filed with the Broward County Department of Planning and Environmental Protection, Air Quality Division, as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Broward County Department of Planning and Environmental Protection, Air Quality Division, to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
 - 1. The type, location, and designation of the emissions unit tested.
 - 2. The facility at which the emissions unit is located.
 - 3. The owner or operator of the emissions unit.
 - 4. 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.
 - 5. 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.
 - 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
 - 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
 - 8. The date, starting time and duration of each sampling run.
 - 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
 - 10. The number of points sampled and configuration and location of the sampling plane.
 - 11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
 - 12. The type, manufacturer and configuration of the sampling equipment used.
 - 13. Data related to the required calibration of the test equipment.
 - 14. Data on the identification, processing and weights of all filters used.
 - 15. Data on the types and amounts of any chemical solutions used.
 - 16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
 - 17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
 - 18. All measured and calculated data required to be determined by each applicable test procedure for each run.
 - 19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
 - 20. 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.

21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. 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.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

- **D.20.** <u>Used Oil.</u> Burning of on-specification used oil is allowed in emissions units 001, 002, 003 and 004 in accordance with all other conditions of this permit and the following additional conditions:
 - a. On-specification Used Oil Allowed as Fuel: This permit allows the burning of used oil fuel meeting EPA "on-specification" used oil specifications, with a PCB concentration of less than 50 ppm, originating from FPL operations. Used oil that does not meet the specifications for on-specification used oil shall not be burned at this facility.

On-specification used oil shall meet the following specifications: [40 CFR 279, Subpart B.]

Arsenic shall not exceed 5.0 ppm; Cadmium shall not exceed 2.0 ppm; Chromium shall not exceed 10.0 ppm; Lead shall not exceed 100.0 ppm; Total halogens shall not exceed 1000 ppm; Flash point shall not be less than 100 degrees F.

- b. Quantity Limited: The maximum total quantity of used oil that may be burned in all four emissions units is 1.5 million gallons in any consecutive 12-month period.
- c. <u>Used Oil Containing PCBs Not Allowed:</u> Used oil containing a PCB concentration of 50 or more ppm shall not be burned at this facility. Used oil shall not be blended to meet this requirement.
- d. PCB Concentration of 2 to less than 50 ppm: On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall be burned only at normal source operating temperatures. On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall not be burned during periods of startup or shutdown.
- e. <u>Testing Required</u>: The owner or operator shall sample and analyze each batch of used oil to be burned for the following parameters:

Arsenic, cadmium, chromium, lead, total halogens, flash point, and PCBs.

Testing (sampling, extraction and analysis) shall be performed using approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods), latest edition.

f. Record Keeping Required: The owner or operator shall obtain, make, and keep the following records related to the use of used oil in a form suitable for inspection at the facility by the Department: [40 CFR 279.61 and 761.20(e)]

- (1) The gallons of on-specification used oil received and burned each month. (This record shall be completed no later than the fifteenth day of the succeeding month.)
- (2) The total gallons of on-specification used oil burned in the preceding consecutive 12-month period. (This record shall be completed no later than the fifteenth day of the succeeding month.)
- (3) Results of the analyses required above.
- g. <u>Reporting Required</u>: The owner or operator shall submit, with the Annual Operation Report form, the analytical results and the total amount of on-specification used oil burned during the previous calendar year.

[Rules 62-4.070(3) and 62-213.440, F.A.C., 40 CFR 279 and 40 CFR 761, unless otherwise noted]

Section IV. This Section is the Acid Rain Part.

Operated by:

Florida Power and Light Company

ORIS code:

0617

Subsection A. This Subsection addresses Acid Rain, Phase II.

The emissions unit(s) listed below are regulated under Phase II of the federal Acid Rain Program.

E.U. ID	EPA ID	
No.	No.	Brief Description
001	PPE1	Fossil Fuel Steam Generator, Unit 1
002	PPE2	Fossil Fuel Steam Generator, Unit 2
003	PPE3	Fossil Fuel Steam Generator, Unit 3
004 .	PPE4	Fossil Fuel Steam Generator, Unit 4

- 1. The Phase II part application renewal submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain unit(s) must comply with the standard requirements and special provisions set forth in the application renewal listed below:
- **a.** DEP Form No. 62-210.900(1)(a), effective 04/16/01, and signed by the Designated Representative on 04/07/03.

[Chapter 62-213, F.A.C.; and Rule 62-214.320, F.A.C.]

2. Sulfur dioxide (SO₂) allowance allocations for each Acid Rain unit are as follows:

E.U. ID No.	EPA ID	Year	2004	2005	2006	2007	2008
001	PPE1	SO2 allowances, under Table 2 of 40 CFR Part 73	2339*	2339*	2339*	2339*	2339*
002	PPE2	SO2 allowances, under Table 2 of 40 CFR Part 73	2413*	2413*	2413*	2413*	2413*
003	PPE3	SO2 allowances, under Table 2 of 40 CFR Part 73	5880*	5880*	5880*	5880*	5880*

E.U. ID							
No.	EPA ID	Year	2004	2005	2006	2007	2008
004	PPE4	SO2					
		allowances,					
		under Table	5962*	5962*	5962*	5962*	5962*
		2 of 40 CFR					
		Part 73					

- * The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 of 40 CFR 73.
- 3. <u>Fast-Track Revisions of Acid Rain Parts.</u> Those Acid Rain sources making a change described at Rule 62-214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, Fast-Track Revisions of Acid Rain Parts.

 [Rule 62-213.413, F.A.C.]
- 4. <u>Comments, notes, and justifications.</u> The Phase II Part Application Renewal form was received on April 24, 2003.
- 5. <u>Emission Allowances</u>. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.
- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.
- b. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
- c. Allowances shall be accounted for under the Federal Acid Rain Program. [Rule 62-213.440(1)(c)1., 2. & 3., F.A.C.]
- 6. <u>Statement of Compliance.</u> The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year. {See condition No. 51., Appendix TV-4, Title V Conditions.} [Rule 62-214.420(11), F.A.C.]
- 7. Where an applicable requirement of the Act is more stringent than applicable regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by the Administrator.

[40 CFR 70.6(a)(1)(ii); and, Rule 62-210.200, F.A.C., Definitions – Applicable Requirements.]

Appendix U-1, List of Unregulated Emissions Units and/or Activities

<u>Unregulated Emissions Units and/or Activities</u>. An emissions unit which emits no "emissions-limited pollutant" and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither 'regulated emissions units' nor 'insignificant emissions units'.

E.U. ID No.	Brief Description of Emissions Units and/or Activity
017	Above ground fuel oil storage tanks
018	Miscellaneous internal combustion engines and portable equipment

Appendix I-1, List of Insignificant Emissions Units and/or Activities

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, or that meet the criteria specified in Rule 62-210.300(3)(b)1., F.A.C., Generic Emissions Unit Exemption, are exempt from the permitting requirements of Chapters 62-210, 62-212 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

Brief Description of Emissions Units and/or Activities
1. Spent boiler chemical cleaning liquid evaporation.
2. Laboratory equipment used exclusively for chemical or physical analysis.
3. Brazing, soldering, or welding equipment.
4. Surface coating facilities provided that 6.0 gallons of coatings per day or less are applied.
5. Hydrazine feed line vent.
6. Lube oil system.
7. Oil/water separators and related equipment.
8. Misc. mobile vehicle operation.
9. Paint & lube oil building.
10. Chemical storage building.
11. Hazardous waste storage area.
12. Natural gas metering station.
13. Internal combustion engine.
14. Fire and safety equipment.

Appendix H-1, Permit History/ID Number Changes

Permit History (for tracking purposes):

E.U.			Issue	Expiration	Extended	Revised
ID No.	Description	Permit No.	Date	Date	Date ^{1, 2}	Date(s)
001	Fossil Fuel Steam	AO 06-223345	04/21/93	02/28/98	_	
	Generator #1					
002	Fossil Fuel Steam	AO 06-223350	04/21/93	02/15/98		
	Generator #2					
003	Fossil Fuel Steam	AO 06-223351	04/21/93	02/15/98		
	Generator #3					
004	Fossil Fuel Steam	AO 06-223352	04/21/93	02/15/98		
	Generator #4		•			
005	Gas Turbine Generator	AO 06-230618	06/16/93	06/04/98		
	#1 - 12					
001-	As noted above.	0110036-001-AV	06/24/98	12/31/03		
005		0110036-002-AV		12/31/03		
		(Administrative				
		Correction)				
		0110036-003-AV	02/26/01	12/31/03		
001-	As noted above.	0110036-005-AC	07/14/03	04/01/07		
004			· · · · · · · · · · · · · · · · · · ·			

ID Number Changes (for tracking purposes):

From: Facility ID No.: 50BRO060036

To: Facility ID No.: 0110036

Notes:

- 1 AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.
- 2 AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96. {Rule 62-213.420(1)(b)2., F.A.C., allows Title V Sources to operate under existing valid permits that were in effect at the time of application until the Title V permit becomes effective.}

Table 1-1, Summary of Air Pollutant Emission Standards

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit	Brief Description
001	Fossil Fuel Steam Generator, Unit 1
002	Fossil Fuel Steam Generator, Unit 2

			Allowable Emissions			Equivalent Emissions ¹²		· · · · · · · · · · · · · · · · · · ·
Pollutant	Fuel(s)	Hours per Year	Standard(s)	lb/hour	TPY	lb/hour TPY	Regulatory Citations	See Permit Condition(s)
VE Steady State	Oil, Natural Gas or Propane	8760	40% opacity, or 20% opacity (see Specific Condition A.4.2.)				Rule 62- 296.405(1)(a), F.A.C.	A.4.
VE Soot Blowing or Load Change	Oil, Natural Gas or Propane	8760	60 % opacity (>60% opacity for not more than 4, six-minute periods), or 40 % opacity (>40% opacity for not more than 4, six-minute periods) (see Specific Condition A.5.2.)				Rule 62- 210.700(3), F.A.C.	A.5.
PM Steady State	Oil, Natural Gas or Propane	8760	0.1 lb/mmBtu, or 0.03 lb/mmBtu (see Specific condition A.6.2.)			230, or	Rule 62- 296.405(1)(b), F.A.C.	A.6.1., or A.6.2.
PM Soot Blowing or Load Change	Oil, Natural Gas or Propane	8760	0.3 lb/mmBtu, or 0.1 lb/mmBtu (see Specific condition A.7.2.)			690, or 2	Rule 62- 210.700(3), F.A.C.	A.7.1., or A.7.2.

Table 1-1, Continued

Emissions Unit	Brief Description
001	Fossil Fuel Steam Generator, Unit 1
002	Fossil Fuel Steam Generator, Unit 2

			Allowable Emissions			Equivalent Emissions ^{1,2}		
Pollutant	Fuel(s)	Hours	Standard(s)	lb/hour	TPY	lb/hour TPY	Regulatory	See Permit
		per Year					Citations	Condition(s)
SO ₂	Oil,	8760	2.75 lb/mmBtu			6325**** 27704***	Rule 62-	A.8.
	Natural						296.405(1)(c)1.j.,	
	Gas						F.A.C.	
NO _x	Oil	8760	0.36 lb/mmBtu			3626!6 ¹	Rule 62-	A.9.
							296.570(4)(b)1,	,
							F.A.C.	
NO _x	Natural	8760	0.20 lb/mmBtu			2102.47	Rule 62-	A.9.
	Gas						296.570(4)(b)1,	
							F.A.C.	

Table 1-1, Continued

	Emissions Unit	Brief Description
	003	Fossil Fuel Steam Generator, Unit 3
ſ	004	Fossil Fuel Steam Generator, Unit 4

			Allowable Emissions			Equivalent Emissions		
Pollutant	Fuel(s)	Hours per Year	Standard(s)	lb/hour	TPY	lb/hour TPY	Regulatory Citations	See Permit Condition(s)
VE Steady State	Oil, Natural Gas or Propane	8760	40% opacity, or 20% opacity (see Specific Condition B.4.2.)				Rule 62- 296.405(1)(a), F.A.C.	B.4.
VE Soot Blowing or Load Change	Oil, Natural Gas or Propane	8760	60 % opacity (>60% opacity for not more than 4, six-minute periods), or 40 % opacity (>40% opacity for not more than 4, six-minute periods) (see Specific Condition B.5.2.)				Rule 62- 210.700(3), F.A.C.	B.5.
PM Steady State	Oil, Natural Gas or Propane	8760	0.1 lb/mmBtu, or 0.03 lb/mmBtu (see Specific Condition B.6.2.)			400, or 120	Rule 62- 296.405(1)(b), F.A.C.	B.6.1., or B.6.2.
PM Soot Blowing or Load Change	Oil, Natural Gas or Propane	8760	0.3 lb/mmBtu, or 0.1 lb/mmBtu (see Specific Condtion B.7.2.)			(1200, or 400)	Rule 62- 210.700(3), F.A.C.	B.7.1., or B.7.2.

Table 1-1, Continued

Emissions Unit	Brief Description
003	Fossil Fuel Steam Generator, Unit 3
004	Fossil Fuel Steam Generator, Unit 4

			Allowable Emissions			Equivalent Emissions ^{1,2}		
Pollutant	Fuel(s)	Hours	Standard(s)	lb/hour	TPY	lb/hour TPY	Regulatory	See Permit
		per Year					Citations	Condition(s)
SO ₂	Oil,	8760	2.75 lb/mmBtu			11000* 48180*	Rule 62-	B.8.
	Natural					Tarana and American	296.405(1)(c)1.j.,	
	Gas						F.A.C.	
NO _x	Oil	8760	0.53 lb/mmBtu			2120 9285.6	Rules 62-	B.9.
							296.570(4)(b)2,	·
							F.A.C.	
NO _x	Natural	8760	0.40 lb/mmBtu			7323:4	Rule 62-	B.9.
	Gas						296.570(4)(b)2,	
							F.A.C.	

Table 1-1, Continued

Emissions Unit	Brief Description
005	12 Simple Cycle Gas Turbines, GT1 through GT12.

			Allowable Emissions			Equivalent + // Emissions ¹⁻³		
Pollutant	Fuel(s)	Hours per Year	Standard(s)	lb/hour	TPY	lb/hour TPY	Regulatory Citations	See Permit Condition(s)
VE Steady State	Oil, Natural Gas or Propane	8760	20% opacity		·		Rule 62- 296.320(4)(b)1., F.A.C.	C.4.
NO _x	Oil	8760	0.90 lb/mmBtu			7581.6 33207	Rule 62- 296.570(4)(b)2, F.A.C.	C.5.
NO _x	Natural Gas	8760	0.50 lb/mmBtu			4212 18449	Rule 62- 296.570(4)(b)5, F.A.C.	C.5.

Notes:

¹ The "Equivalent Emissions" listed are for informational purposes only.

² The "Equivalent Emissions" are for each emission unit, unless otherwise noted.

³ The "Equivalent Emissions" are for all twelve turbines combined.

^{*}Lb/hr and TPY values are for SO₂ emissions using fuel oil.

Table 2-1, Summary of Compliance Requirements

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit	Brief Description
001	Fossil Fuel Steam Generator, Unit 1
002	Fossil Fuel Steam Generator, Unit 2

Pollutant or	Fuel(s)	Compliance	Testing	Frequency	Minimum	CMS ²	See Permit
Parameter		Method	Frequency	Base Date ¹	Compliance Test Duration		Condition(s)
VE	Oil, Natural Gas or Propane	DEP Method 9	Annual	September 30	1 hour	No	A.10. & A.15.
PM	Oil, Natural Gas or Propane	EPA Test Methods 5, 5B, or 17	Annual	September 30	3 hours	No	A.10., A.13. & A.15.
SO ₂	Oil, Natural Gas or Propane	Continuous Emissions Monitor	Continuous			Yes	A.11. & A.14.
NOx	Oil, Natural Gas or Propane	Continuous Emissions Monitor	Continuous			Yes	A.9.

Table 2-1, Continued

Emissions Unit	Brief Description
003	Fossil Fuel Steam Generator, Unit 3
004	Fossil Fuel Steam Generator, Unit 4

Pollutant or	Fuel(s)	Compliance	Testing	Frequency	Minimum	CMS ²	See Permit
Parameter 		Method	Frequency	Base Date ¹	Compliance Test Duration		Condition(s)
VE	Oil, Natural Gas or Propane	DEP Method 9	Annual	September 30	1 hour	No	B.10. & B.15.
PM	Oil, Natural Gas or Propane	EPA Test Methods 5, 5B, or 17	Annual	September 30	3 hours	No	B.10., B.13. & B.15.
SO ₂	Oil, Natural Gas or Propane	Continuous Emissions Monitor	Continuous			Yes	B.11. & B.14.
NOx	Oil, Natural Gas or Propane	Continuous Emissions Monitor	Continuous			Yes	В.9.

Table 2-1, Continued

Emissions Unit	Brief Description
005	12 Simple Cycle Gas Turbines, GT1 through GT12.

Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
VE	Oil, Natural Gas	EPA Method 9	Annual, each turbine exceeding fuel limit.	October 31	30 min.	No	C.6.
NOx	Oil, Natural Gas	EPA Method 20 or EPA Method 7E	Every five years, one turbine only, provided operation is no more than 320 hours/year/ turbine on oil.	September 30	3 hours	No	C.7., C.8.

Notes:

¹ Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C. ² CMS = continuous monitoring system

Table 2-1, Continued

Emissions Unit	Brief Description
005	12 Simple Cycle Gas Turbines, GT1 through GT12.

Pollutant or	Fuel(s)	Compliance	Testing	Frequency	Minimum	CMS ²	See Permit
Parameter		Method	Frequency	Base Date ¹	Compliance Test		Condition(s)
					Duration		
VE	Oil,	EPA Method 9	Annual,	October 31	30 min.	No	C.6.
	Natural		each turbine				
	Gas		exceeding fuel				
			limit.				
NOx	Oil,	EPA Method 20 or EPA Method 7E	Every five	September 30	3 hours	No	C.7., C.8.
	Natural		years, one				
	Gas		turbine only,				
			provided				
			operation is no				
			more than 320				
			hours/year/				
			turbine on oil.				

Notes:

¹ Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C. ² CMS = continuous monitoring system



Department of Environmental Protection

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

David B. Struhs Secretary

PROPOSED Permit Electronic Posting Courtesy Notification

Florida Power and Light Company Port Everglades Plant Facility ID No.: 0110036 Broward County

Title V Air Operation Permit Renewal **PROPOSED Permit No.:** 0110036-006-AV

The electronic version of the PROPOSED permit was posted on the Division of Air Resources Management's world wide web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review on July 24, 2003.

USEPA's review period ends on the 45th day after the permit posting date. Day 45 is September 6, 2003. If an objection (veto) is received from USEPA, the permitting authority will provide a copy of the objection to the applicant.

Provided an objection is not received from USEPA, the PROPOSED permit will become a FINAL permit by operation of law on the 55th day after the permit posting date. Day 55 is September 16, 2003.