

# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

October 31, 1997

Mr. John Stanton  
Plant General Manager  
Florida Power & Light Company  
Environmental Services Department  
P.O. Box 14000  
Juno Beach, FL 33408

Re: PROPOSED Title V Permit No.: 0110037-001-AV  
Lauderdale Plant


Dear Mr. Stanton:

One copy of the "PROPOSED PERMIT DETERMINATION" for the Lauderdale Plant located two miles West of Ravenswood Road, Fort Lauderdale, Broward County, is enclosed. This letter is only a courtesy to inform you that the DRAFT permit has become a PROPOSED permit.

An electronic version of this determination has been posted on the Division of Air Resource Management's world wide web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review. The web site address is <http://www.dep.state.fl.us/air>.

Pursuant to Section 403.0872(6), Florida Statutes, if no objection to the PROPOSED permit is made by the USEPA within 45 days, the PROPOSED permit will become a FINAL permit no later than 55 days after the date on which the PROPOSED permit was mailed (posted) to USEPA. If USEPA has an objection to the PROPOSED permit, the FINAL permit will not be issued until the permitting authority receives written notice that the objection is resolved or withdrawn.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 850/488-1344.

Sincerely,

*for*   
C. H. Fancy, P.E.  
Chief  
Bureau of Air Regulation

CHF/c

Enclosures

copy furnished to:

Mr. William Muly Reichel, Florida Power & Light Company  
Mr. Kennard F. Kosky, P.E., Golder Associates  
Mr. Richard Piper, Florida Power & Light Company  
Ms. Daniela Banu, Broward County Department of Natural Resource Protection  
Ms. Carla E. Pierce, USEPA, Region 4 (INTERNET E-mail Memorandum)  
Ms. Yolanda Adams, USEPA, Region 4 (INTERNET E-mail Memorandum)

11/3/97 cc: Reading File  
Tom Cascio

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

## PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0110037-001-AV

Page 1 of 8

### **I. Public Notice.**

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" to the Florida Power and Light Company for the Lauderdale Plant located two miles West of Ravenswood Road, Fort Lauderdale, Broward County, was clerked on September 11, 1997. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was published in the Broward Daily Business Review on September 25, 1997. The DRAFT Title V Air Operation Permit was available for public inspection at the Broward County Department of Natural Resource Protection office 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" was received on October 2, 1997.

### **II. Public Comment(s).**

Comments were received and the DRAFT Title V Operation Permit was changed. The comments were not considered significant enough to reissue the DRAFT Title V Permit and require another Public Notice. Comments were received from one respondent during the 30 (thirty) day public comment period. Listed below is a response to each comment in the letter in the same order as the comment was listed. The comments are not restated.

A. Letter from Mr. Richard Piper dated October 1, 1997, and received by fax on October 1, 1997.

#### Placard Page

##### **1. Comment # 1:**

**Response:** The Department has changed the facility mailing address as requested.

#### Facility Description

##### **2. Comment # 2:**

**Response:** The Department agrees to the recommended change. As a result, the first paragraph is rewritten as follows:

This facility consists primarily of two combined-cycle generating units, two banks of twelve simple-cycle gas turbine units, and seven fuel storage tanks. Each combined-cycle unit consists of two combustion turbines (CTs) which each exhaust through a separate heat recovery steam generator (HRSG). Each HRSG converts the heat from the CT exhaust into steam. The steam produced from two HRSGs drives one single-reheat turbine generator. Each combined-cycle unit has a net summer continuous capability of 430 MW. Each bank of simple-cycle gas turbines has a net capability of 504 MW.

**3. Comment # 3:**

**Response:** The Department agrees to the recommended change. As a result, Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s), is rewritten as follows:

**E.U. ID**

<b><u>No.</u></b>	<b><u>Brief Description</u></b>
-035	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 4A)
-036	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 4B)
-037	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 5A)
-038	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 5B)
-003	Bank of 12 Combustion Turbines (Nos. 1 to 12)
-015	Bank of 12 Combustion Turbines (Nos. 13 to 24)
-027	Fuel Oil Storage Tank #2 (80,000 bbl, Light Distillate Fuel Oil)
-028	Fuel Oil Storage Tank #3 (150,000 bbl, Light Distillate Fuel Oil)
-029	Fuel Oil Storage Tank #5 (75,000 bbl, Light Distillate Fuel Oil)
-032	Unleaded Fuel Tank (4,000 gallon, Gasoline)
-033	Diesel Fuel Tank (1,000 gallon)
-030	2 Fuel Oil Dump Tanks (2,500 gallon and 110 gallon)
-039	Site Solvent Usage

**Combined-Cycle Combustion Turbine with Heat Recovery Steam Generators**

**4. Comment # 4:**

**Response:** This is essentially the same comment as # 2. The requested change was made.

**5. Comment # 5:**

**Response:** The requested change to the table heading was made.

**6. Comment # 6:**

**Response:** The Department agrees that sulfuric acid mist is the proper pollutant referenced. Therefore, the following sentence has been added to specific condition A.8:

Sulfuric acid mist emissions assume a maximum of 0.3 percent sulfur in fuel oil for hourly emissions, and an average sulfur content of 0.2 percent for annual emissions.

**7. Comment # 7:**

**Response:** The Department agrees to change the word "allowable" from the sentence referenced in specific condition A.8 to "potential"; also, the word "Allowable" in the table will be changed to "Potential".

**8. Comment # 8:**

**Response:** The Department believes that specific condition A.16 applies to these units and it is retained in the PROPOSED Permit.

**9. Comment # 9:**

**Response:** The Department agrees with the recommended change.

As a result of this comment, specific condition A.20 is hereby changed:

**From:**

**A.20. 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.]

**To:**

**A.20. Operating Rate During Testing.** Testing of emissions shall be conducted with each emissions unit operating at capacity. Capacity is defined as 95-100 percent of the manufacturer's rated heat input achievable for the average ambient (or conditioned) air temperature during the test. If it is impracticable to test at capacity, then an emissions unit may be tested at less than capacity. In such cases, the entire heat input vs. inlet temperature curve will be adjusted by the increment equal to the difference between the design heat input value and 105 percent of the value reached during the test. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report. 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.; PSD-FL-145, Specific Condition No. 23]

**10. Comment # 10:**

**Response:** This is an informational item only. No change was requested.

**11. Comment # 11:**

**Response:** The Department agrees that the Customized Fuel Monitoring Schedule should be referenced.

As a result of this comment, the following sentence has been added to specific condition **A.23**:

The Lauderdale Plant has an approved Customized Fuel Monitoring Schedule (dated March 12, 1993).

**12. Comment # 12:**

**Response:** The Department agrees with the recommended revised wording.

As a result of this comment, specific condition **A.25** is hereby changed:

**From:** For the purposes of 40 CFR 60.13, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of 40 CFR 60.13 upon promulgation of performance specifications for continuous monitoring systems under Appendix B of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, Appendix F of 40 CFR 60, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.  
[40 CFR 60.13(a)]

**To:** For the purposes of 40 CFR 60.13, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of 40 CFR 60.13 upon promulgation of performance specifications for continuous monitoring systems under Appendix B of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, the continuous emission monitoring system shall be installed, calibrated, operated and maintained in accordance with the quality assurance requirements of 40 CFR 60, Appendix F and 40 CFR 75, adopted and incorporated by reference in rule 62-204.800, F.A.C. Compliance shall be demonstrated based on a 3-hour rolling average.  
[40 CFR 60.13(a); and, Rules 62-213.440, 62-204.800 and 62-296.405(1)(c)3., F.A.C.]

**13. Comment # 13:**

**Response:** The Department agrees that specific conditions **A.26** and **A.27** do not apply to these emissions units. They have been deleted from the PROPOSED Permit and subsequent specific conditions renumbered.

**14. Comment # 14:**

**Response:** The Department agrees that specific condition **A.28(2)** does not apply to these emissions units. It has been deleted from renumbered specific condition **A.26** in the PROPOSED Permit.

As a result of this comment, specific condition **A.28** (renumbered **A.26**) is hereby changed:

**From:** (1) Owners and operators of all continuous emission monitoring systems (CEMS) installed in accordance with the provisions of this part shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in Appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. For continuous monitoring systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments except that for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(2) Unless otherwise approved by the Administrator, the following procedures shall be followed for continuous monitoring systems measuring opacity of emissions. Minimum procedures shall include a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photo detector assembly.

[40 CFR 60.13(d)(1) and (2)]

**To:** (1) Owners and operators of all continuous emission monitoring systems (CEMS) installed in accordance with the provisions of this part shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in Appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. For continuous monitoring systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments except that for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

[40 CFR 60.13(d)(1)]

**15. Comment # 15:**

**Response:** The Department agrees that specific condition **A.32** does not apply to these emissions units. It has been deleted from the PROPOSED Permit, and the subsequent specific conditions renumbered.

**Banks of Combustion Turbines**

**16. Comment # 16:**

**Response:** The Department believes that specific condition B.1 is appropriate as written.

**17. Comment # 17:**

**Response:** The Department agrees with the requested wording revision.

As a result of this comment, specific condition **B.3** is hereby changed:

**From:** Methods of Operation - Fuels. The only fuels authorized to be burned in these emissions units are natural gas or No. 2 fuel oil.

[Rule 62-213.410, F.A.C.; AO06-230614]

**To:** Methods of Operation - Fuels. The only fuels authorized to be burned in these emissions units are natural gas or light distillate fuel oil.

[Rule 62-213.410, F.A.C.; AO06-230614]

**18. Comment # 18:**

**Response:** The Department agrees that clarification is needed in specific condition **B.14** to remove the apparent conflict with the requirements of specific condition **B.22**.

As a result of this comment, specific condition **B.14** is hereby changed:

**From:** Visible Emissions. At least one combustion turbine shall be tested per year. At least one compliance test shall be conducted on all 24 combustion turbines every five years. At least one quarter of the tests shall be conducted while burning fuel oil, and at least one quarter of the tests shall be conducted while burning natural gas. Each visible emissions compliance test shall be conducted while the combustion turbine is operating at 90-100 percent of its capacity.

[AC06-179848, Specific Condition No. 23]

**To:** Visible Emissions. A visible emissions compliance test shall be conducted on each combustion turbine that operates more than 400 hours in a federal fiscal year. At least one combustion turbine shall be tested per year. At least one compliance test shall be conducted on all twenty-four combustion turbines every five years, coinciding with the term of the operation permit for these turbines. At least one quarter of the tests shall be conducted while burning fuel oil, and at least one quarter of the tests shall be conducted while burning natural gas. Each visible emissions compliance test shall be conducted while the combustion turbine is operating at 90-100 percent of its capacity. **Note:** If all twenty-four combustion turbines each operate less than 400 hours on fuel oil, the annual visible emissions test of at least one (as indicated above) is not required. See specific condition **B.22**.

[AC06-179848, Specific Condition No. 23]

**19. Comment # 19:**

**Response:** The Department agrees with the recommended language revision to the specific condition.

As a result of this comment, specific condition **B.16** is hereby changed:

**From:** Nitrogen Oxides. At least one combustion turbine shall be tested per year. At least one compliance test shall be conducted on all 24 combustion turbines every five years. At least one quarter of the tests shall be conducted while burning fuel oil, and at least one quarter of the tests shall be conducted while burning natural gas. Each compliance test shall be conducted while the combustion turbine is operating at 90-100 percent of its capacity.

[Rule 62-296.570, F.A.C.; AO06-148762]

**To:** Nitrogen Oxides. 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 each 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. ; Requested by the applicant in letter dated October 1, 1997]

**20. Comment # 20:**

**Response:** The Department agrees with the recommended language revision to the specific condition.

As a result of this comment, specific condition **B.18** is hereby changed:

**From:** The VOC emission factors for the combustion turbines shall be confirmed every five (5) years by EPA Method 25A tests as described in 40 CFR 60, Appendix A (July 1, 1996) on any of the combustion turbines while burning 100% natural gas and 100% No. 2 fuel oil.

[AO06-230614, Specific Condition No. 9]

**To:** The VOC emission factors for the combustion turbines shall be confirmed every five (5) years by EPA Method 25A tests as described in 40 CFR 60, Appendix A (July 1, 1996) on any representative unit in each bank of the combustion turbines. Tests shall be conducted both while burning 100% natural gas and 100% light distillate oil.

[AO06-230614, Specific Condition No. 9]

**21. Comment # 21:**

**Response:** The Department believes that specific condition **B.19** is appropriate as written.



**Fuel Oil Storage Tanks**

**22. Comment # 22:**

**Response:** The Department agrees with the recommended language revision to the specific condition.

As a result of this comment, specific condition C.2 is hereby changed:

**From:** The VOC emissions in tons per year, by specific tank, for all the units identified in specific condition C.1., shall be calculated for Annual Operating Report for Air Pollutant Emitting Facility purposes by the procedures described in AP-42, Section 4.3, Storage of Organic Liquids. Actual throughput and meteorological data shall be used for these calculations. [Rule 62-210.370(3), F.A.C.; AO06-230614, Specific Condition No. 3]

**To:** The VOC emissions in tons per year, by specific tank, for all the units identified in specific condition C.1., shall be calculated for Annual Operating Report for Air Pollutant Emitting Facility purposes by the procedures described in AP-42, Section 4.3, Storage of Organic Liquids. Actual throughput and representative meteorological data shall be used for these calculations. [Rule 62-210.370(3), F.A.C.; AO06-230614, Specific Condition No. 3]

**Tables**

**23. Comment # 23:**

**Response:** The requested change was made to **Table 1-1**.

**24. Comment # 24:**

**Response:** The requested change was made to **Table 2-1**.

**B. Documents on file with the permitting authority:**

- Letter from Mr. Richard Piper dated October 1, 1997, and received by fax on October 1, 1997.

**III. Conclusion.**

The permitting authority hereby issues the PROPOSED Permit No.: 0110037-001-AV, with any changes noted above. Because of the number of changes to the DRAFT, a copy of the PROPOSED Permit has been printed for the applicant.

Florida Power and Light Company  
Lauderdale Plant  
**Facility ID No.: 0110037**  
Broward County

Initial Title V Air Operation Permit  
**PROPOSED Permit No.: 0110037-001-AV**

Permitting Authority:

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

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

Telephone: 850/488-1344  
Fax: 850/922-6979

October 31, 1997

Compliance Authority:

Broward County Department of Natural Resource Protection  
Air Quality Division

218 Southwest First Avenue  
Fort Lauderdale, Florida 33301

Telephone: 954/519-1220  
Fax: 954/519-1495

Initial Title V Air Operation Permit  
PROPOSED Permit No.: 0110037-001-AV

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# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

**Permittee:**

Florida Power & Light Company  
4300 SW 42nd Avenue  
Fort Lauderdale, FL 33314

**PROPOSED Permit No.:** 0110037-001-AV

**Facility ID No.:** 0110037

**SIC Nos.:** 49, 4911

**Project:** Initial Title V Air Operation Permit

This permit is for the operation of the Lauderdale Plant. This facility is located 2 miles West of Ravenswood Road, Fort Lauderdale, Broward County; UTM Coordinates: Zone 17, 580.2 km East and 2883.3 km North; Latitude: 26° 04' 05" North and Longitude: 80° 11' 54" West.

STATEMENT OF BASIS: This Title V air operation permit 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.

**Referenced attachments made a part of this permit:**

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

Appendix E-1, List of Exempt Emissions Units and/or Activities

APPENDIX TV-1, TITLE V CONDITIONS (version dated 8/11/97)

APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)

FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS

EMISSION AND MONITORING SYSTEM PERFORMANCE REPORT (40 CFR 60; July, 1996)

Phase II Acid Rain Application/Compliance Plan received December 6, 1995

Customized Fuel Monitoring Schedule (dated March 12, 1993)

**Effective Date:** January 1, 1998

**Renewal Application Due Date:** July 5, 2002

**Expiration Date:** December 31, 2002

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Howard L. Rhodes, Director  
Division of Air Resources  
Management

HLR/sms/tbc

**Section I. Facility Information.**

**Subsection A. Facility Description.**

This facility consists primarily of two combined-cycle generating units, two banks of twelve simple-cycle gas turbine units, and seven fuel storage tanks. Each combined-cycle unit consists of two combustion turbines (CTs) which each exhaust through a separate heat recovery steam generator (HRSG). Each HRSG converts the heat from the CT exhaust into steam. The steam produced from two HRSGs drives one single-reheat turbine generator. Each combined-cycle unit has a net summer continuous capability of 430 MW. Each bank of simple-cycle gas turbines has a net capability of 504 MW.

Also included in this permit is a regulated unit for solvent usage; in addition, there are miscellaneous unregulated/exempt emissions units and/or activities.

Based on the initial Title V permit application received June 12, 1996, 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.**

<b><u>ID No.</u></b>	<b><u>Brief Description</u></b>
-035	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 4A)
-036	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 4B)
-037	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 5A)
-038	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 5B)
-003	Bank of 12 Combustion Turbines (Nos. 1 to 12)
-015	Bank of 12 Combustion Turbines (Nos. 13 to 24)
-027	Fuel Oil Storage Tank #2 (80,000 bbl, Light Distillate Fuel Oil)
-028	Fuel Oil Storage Tank #3 (150,000 bbl, Light Distillate Fuel Oil)
-029	Fuel Oil Storage Tank #5 (75,000 bbl, Light Distillate Fuel Oil)
-032	Unleaded Fuel Tank (4,000 gallon, Gasoline)
-033	Diesel Fuel Tank (1,000 gallon)
-030	2 Fuel Oil Dump Tanks (2,500 gallon and 110 gallon)
-039	Site Solvent Usage

**Unregulated Emissions Units and/or Activities**

-xxx	Emergency Diesel Generator
-xxx	Facility-wide Fugitive Emissions for VOC's

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

**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:

Table 1-1, Summary of Air Pollutant Standards and Terms

Table 2-1, Summary of Compliance Requirements

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers

Appendix H-1, Permit History/ID Number Changes

These documents are on file with the permitting authority:

Initial Title V Permit Application received June 12, 1996

DRAFT Title V Permit issued September 11, 1997

Letter from Mr. Richard Piper dated October 1, 1997 and received by fax on October 1, 1997

## Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-1, TITLE V CONDITIONS, is a part of this permit.  
{Permitting note: APPENDIX TV-1, 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. No person 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.  
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]
4. Prevention of Accidental Releases (Section 112(r) of CAA). If required by 40 CFR 68, the permittee shall submit to the implementing agency:
  - a. a risk management plan (RMP) when, and if, such requirement becomes applicable; and
  - b. certification forms and/or RMPs according to the promulgated rule schedule.[40 CFR 68]
5. Unregulated Emissions Units and/or Activities. 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. Exempt Emissions Units and/or Activities. Appendix E-1, List of Exempt 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. Volatile Organic Compounds (VOCs). The total VOC emissions from all emissions units at this facility (the two combined-cycle units are excluded from this specific condition) shall not exceed 99.92 tons per year.  
[AC16-199041; AO06-230614, Specific Condition No. 12]

**8. Not federally enforceable.** General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

[Rule 62-296.320(1)(a), F.A.C.; and, proposed by applicant in the initial Title V permit application received June 12, 1996]

**9. Not federally enforceable.** Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include the following:

- a. In order to perform sandblasting on fixed plant equipment, sandblasting enclosures are constructed and operated as necessary. Hoods, fans, and filters are used to contain and capture the sand.
- b. Maintenance of paved areas is performed as needed.
- c. Mowing of grass and care of vegetation are done on a regular basis.
- d. Access to plant property by unnecessary vehicles is controlled and limited.
- e. Bagged chemical products are stored in weather-tight buildings until they are used. Spills of powdered chemical products are cleaned up as soon as practical.

[Rule 62-296.320(4)(c)2., F.A.C.; Proposed by applicant in the initial Title V permit application received June 12, 1996.]

**10.** When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.

[Rule 62-213.440, F.A.C.]

**11.** The permittee shall submit all compliance related notifications and reports required of this permit to the Broward County Department of Natural Resource Protection office:

Broward County Department of Natural Resource Protection

Air Quality Division

218 Southwest First Avenue

Fort Lauderdale, Florida 33301

Telephone: 954/519-1220

Fax: 954/519-1495



12. 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

Operating Permits Section

61 Forsyth Street

Atlanta, Georgia 30303

Telephone: 404/562-9099

Fax: 404/562-9095

13. Statement of Compliance. 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-1, Title V Conditions.}

[Rule 62-214.420(11), F.A.C.]

**Section III. Emissions Unit(s) and Conditions.**

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

**E.U. ID**

<b><u>No.</u></b>	<b><u>Brief Description</u></b>
-035	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 4A)
-036	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 4B)
-037	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 5A)
-038	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 5B)

The four combined-cycle combustion turbines (CTs) are identical in configuration. Each CT is connected to an electrical generator, and each CT generates heat which produces steam in a heat recovery steam generator (HRSG). The steam from two HRSGs is then sent to a steam turbine generator for additional electrical power. The **combined** CT 4A and CT 4B units are designated Unit 4; in like manner, the **combined** CT 5A and CT 5B units are designated Unit 5. Unit 4 and Unit 5 each have a net summer continuous capability of 430 MW. NOx emissions are controlled by using steam injection. Duct modules, suitable for later installation of selective catalytic reduction equipment, have been installed. Unit 4 commenced commercial operation in May, 1993; Unit 5 commenced commercial operation in June, 1993.

{Permitting notes: the emissions units are regulated under Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7)(b)38., F.A.C; PSD-FL-145, Prevention of Significant Deterioration (PSD), in Rule 62-212.400, F.A.C.; and Best Available Control Technology (BACT), in Rule 62-212.410, F.A.C.}

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

**General**

**A.1. Definitions.** For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60, shall apply except that the term "Administrator" when used in 40 CFR 60, shall mean the Secretary or the Secretary's designee.

[40 CFR 60.2; Rule 62-204.800(7)(a), F.A.C.]

**A.2. Circumvention.** No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[40 CFR 60.12]

**Essential Potential to Emit (PTE) Parameters**

**A.3. Permitted Capacity.** The maximum heat input (lower heating value) to each combustion turbine shall not exceed 1,775.62 MMBtu/hr while firing natural gas nor 1,646.9 MMBtu/hr while firing fuel oil, at 75 degrees F.  
 [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; PSD-FL-145, Specific Condition No. 1]

**A.4. Emissions Unit Operating Rate Limitation After Testing.** See specific condition **A.20**.  
 [Rule 62-297.310(2), F.A.C.]

**A.5. Methods of Operation - (Fuels).**  
 Only natural gas or light distillate fuel oil shall be fired in the CTs.  
 [Rule 62-213.410, F.A.C.; PSD-FL-145]

**A.6. Hours of Operation.** These emissions units are allowed to operate continuously, i.e., 8,760 hours/year, provided that the annual heat input (lower heating value) to the four CTs does not exceed 54,129,421 MMBtu and the annual heat input attributed to light distillate fuel oil firing does not exceed 14,426,844 MMBtu (@ 75 degrees F).  
 [Rule 62-210.200(PTE), F.A.C.; PSD-FL-145, Specific Condition No. 2]

**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.}

**A.7.** The maximum allowable emissions from each CT, in accordance with the BACT determination, shall not exceed the following emissions, at 75 degrees F:

Pollutant	Fuel	Basis	Emission Limitations	
			lb/hr/CT	4 CTs (TPY)*
NOx	Gas	42 ppmvd**	264	4868 (combined gas and oil total)
	Oil	65 ppmvd**	422	
VOC	Gas	1 ppmvd	1.3	50 (combined gas and oil total)
	Oil	6 ppmvd	7.8	
CO	Gas	30 ppmvd	89	1,489 (combined gas and oil total)
	Oil	33 ppmvd	100	
PM/PM <sub>10</sub>	Gas		14.7	424.7 (combined gas and oil total)
	Oil		58	
SO <sub>2</sub>	Gas		4.9	1,582.8 (combined gas and oil total)
	Oil		538	

Notes:

\* Refers to the maximum facility emissions (four CTs), with capacity limitations of 25 percent on oil.

\*\*ppm NOx, dry, corrected to ISO standard ambient air conditions and 15 percent oxygen.

[PSD-FL-145, Specific Condition No. 5]

A.8. The following potential emissions, determined by BACT, are tabulated for PSD and inventory purposes:

Pollutant	Fuel	Maximum Potential Emissions (@40 ° F)	
		lb/hr/CT	4 CTs (TPY)
H <sub>2</sub> SO <sub>4</sub> Acid Mist	Gas	0.042	196 (combined gas and oil total)
	Oil	67	
Mercury	Gas	0.0192	0.3 (combined gas and oil total)
	Oil	0.0049	
Fluoride	Oil	0.0535	0.23
Beryllium	Oil	0.0041	0.02

Sulfuric acid mist emissions assume a maximum of 0.3 percent sulfur in fuel oil for hourly emissions, and an average sulfur content of 0.2 percent for annual emissions.  
 [PSD-145, Specific Condition No. 6]

A.9. Opacity. Visible emissions shall neither exceed 10% opacity while burning natural gas, nor 20% opacity while burning distillate oil.  
 [PSD-FL-145, Specific Condition No. 7]

A.10. Opacity. Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.  
 [40 CFR 60.11(a)]

A.11. Opacity. The opacity standards set forth in 40 CFR 60 shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.  
 [40 CFR 60.11(c)]

A.12. Sulfur Dioxide. The maximum allowable sulfur (total) content of the natural gas burned at this facility shall not exceed 10 grains per 1,000 cubic feet (gr/1000 CF). The permittee shall monitor the sulfur content of the natural gas by the customized fuel monitoring schedule approved by EPA.  
 [PSD-FL-145, Specific Condition No. 5; Customized Fuel Monitoring Schedule, dated March 12, 1993]

**A.13. Sulfur Dioxide.** The sulfur content of the light distillate fuel oil shall not exceed a maximum of 0.3 percent, by weight, and shall not exceed an average of 0.2 percent, by weight, during any 12-month period. Compliance shall be demonstrated in accordance with the requirements of 40 CFR 60.335 by testing all oil shipments for sulfur content, nitrogen content, and heating value, using ASTM D 2800-96 or the latest edition.  
[PSD-FL-145, Specific Conditions No. 5 and No. 11]

**A.14. Nitrogen Oxides.** The nitrogen oxides emissions from each combustion turbine unit shall be controlled by using steam injection for both natural gas and fuel oil firing modes.  
[PSD-FL-145, Specific Condition No. 8]

**Excess Emissions**

**A.15.** 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.]

**A.16.** 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.]

**A.17.** 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.]

**A.18.** At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.  
[40 CFR 60.11(d)]

Test Methods and Procedures

{Permitting note: 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.}

A.19. Annual compliance tests shall be performed on each Combustion Turbine with the fuel(s) used for more than 400 hours in the preceding 12-month period. Tests shall be conducted using EPA reference methods, or equivalent, in accordance with the July 1, 1996 version of 40 CFR 60 Appendix A. The stack test for each turbine shall be performed according to the requirements of specific condition A.20.

Pollutant	EPA Reference Method	Gas	Oil
Particulate Matter	5 or 17		X
Visible Emissions	9	X	X
Carbon Monoxide	10	X	X
Nitrogen Oxides	20	X	X
Volatile Organic Compounds	25A	X	X
	<b>Test Method</b>		
Sulfur content	ASTM D 2880-96*		X
	ASTM D 1072-90(94) E-1, ASTM D 3031-81(86), ASTM D 4084-94, or ASTM D 3246-92*	X	

\*or the latest edition.

[PSD-FL-145, Specific Condition No. 10]

A.20. Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operating at capacity. Capacity is defined as 95-100 percent of the manufacturer's rated heat input achievable for the average ambient (or conditioned) air temperature during the test. If it is impracticable to test at capacity, then an emissions unit may be tested at less than capacity. In such cases, the entire heat input vs. inlet temperature curve will be adjusted by the increment equal to the difference between the design heat input value and 105 percent of the value reached during the test. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report. 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.; PSD-FL-145, Specific Condition No. 23]

Monitoring of Operations

A.21. At all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.  
[40 CFR 60.11(d)]

A.22. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG and using water injection to control NO<sub>x</sub> emissions shall install and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within  $\pm 5.0$  percent and shall be approved by the Administrator.  
[40 CFR 60.334(a)]

A.23. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:

- (1) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.
- (2) If the turbine is supplied its fuel without intermediate bulk storage, the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with 40 CFR 60.334(b). The Lauderdale Plant has an approved Customized Fuel Monitoring Schedule (dated March 12, 1993).

[40 CFR 60.334(b)(1) and (2)]

Continuous Monitoring Requirements

A.24. Continuous monitoring of the steam injection rates shall be operated and maintained in accordance with 40 CFR 60, Subpart GG, for each unit.  
[PSD-FL-145, Specific Condition No. 12]

A.25. For the purposes of 40 CFR 60.13, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of 40 CFR 60.13 upon promulgation of performance specifications for continuous monitoring systems under Appendix B of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, the continuous emission monitoring system shall be installed, calibrated, operated and maintained in accordance with the quality assurance requirements of 40 CFR 60, Appendix F and 40 CFR 75, adopted and incorporated by reference in rule 62-204.800, F.A.C. Compliance shall be demonstrated based on a 3-hour rolling average.  
[40 CFR 60.13(a); and, Rules 62-213.440, 62-204.800 and 62-296.405(1)(c)3., F.A.C.]

**A.26.** (1) Owners and operators of all continuous emission monitoring systems (CEMS) installed in accordance with the provisions of this part shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in Appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. For continuous monitoring systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments except that for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

[40 CFR 60.13(d)(1)]

**A.27.** Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems (CMS) shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(1) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(2) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

[40 CFR 60.13(e)(1) and (2)]

**A.28.** All continuous monitoring systems (CMS) or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR 60 shall be used.

[40 CFR 60.13(f)]

**A.29.** When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems (CMS) on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.

[40 CFR 60.13(g)]



Recordkeeping and Reporting Requirements

**A.30. Malfunction Reporting.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

**A.31.** For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as follows:

a. *Nitrogen oxides.* Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the permitted nitrogen oxide standard by the initial performance test required in 40 CFR 60.8 or any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the initial performance test. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a).

[40 CFR 60.334(c)(1)]

**A.32.** The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

[40 CFR 60.7(a)(4)]

**A.33.** The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 CFR 60.7(b)]

**A.34.** The owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall

be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

[40 CFR 60.7(c)(1), (2), (3), and (4)]

**A.35.** The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

[40 CFR 60.7(d)(1) and (2)]

*{See attached Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance} (electronic file name: figure1.doc)*

**A.36.** (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;

(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and

(iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2).

[40 CFR 60.7(e)(1)]

**A.37.** The owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least **5 (five)** years following the date of such measurements, maintenance, reports, and records.

[40 CFR 60.7(f); Rule 62-213.440(1)(b)2.b., F.A.C.]

**A.38.** To determine compliance with the oil firing heat input limitation, the permittee shall maintain daily records of fuel oil consumption for each turbine and monthly records of heating value for such fuel. All records shall be maintained for a minimum of five (5) years after the date of each record and shall be made available to representatives of the Department upon request.

[PSD-FL-145, Specific Condition No. 13]

**A.39.** Quarterly excess emission reports, in accordance with the July 1, 1996 version of 40 CFR 60.7 and 60.334, shall be submitted to the Broward County Department of Natural Resource Protection office.

[PSD-FL-145, Specific Condition No. 19]

**A.40.** The emissions units are also subject to the conditions contained in **Subsection E. Common Conditions.**

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

**E.U.**

**ID No.    Brief Description**

-003      Bank of 12 Combustion Turbines (Nos. 1 to 12)

-015      Bank of 12 Combustion Turbines (Nos. 13 to 24)

The emissions units are two banks of twelve simple-cycle gas turbine units. Each bank of CTs has a net capability of 504 MW.

The bank of CTs Nos. 1 to 12 commenced commercial operation in August, 1970; the bank of CTs Nos. 13 to 24 commenced commercial operation in August, 1972.

{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.}

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

**Essential Potential to Emit (PTE) Parameters**

**B.1. Permitted Capacity.** The heat input rate (lower heating value) to each combustion turbine shall not exceed 702 MMBtu per hour.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; AO06-230614]

**B.2. Permitted Capacity.** The total fuel firing rate (lower heating value) for each bank of 12 gas turbines shall not exceed 8,424 MMBtu/hr during fuel oil firing or natural gas firing. Annual heat input (lower heating value) for each bank of 12 gas turbines shall not exceed 7,379 x

10<sup>9</sup> Btu.

[AO06-148762]

**B.3. Methods of Operation - Fuels.** The only fuels authorized to be burned in these emissions units are natural gas or light distillate fuel oil.

[Rule 62-213.410, F.A.C.; AO06-230614]

**B.4. Hours of Operation.** These emissions units are allowed to operate continuously, i.e., 8,760 hours/year.

[Rule 62-210.200(PTE), F.A.C.; AO36-223496, Specific Condition No. 8]

**B.5. Emissions Unit Operating Rate Limitation After Testing.** See specific condition **B.19.**

[Rule 62-297.310(2), 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.}

**B.6. Visible Emissions.** 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.; and; AO06-230614, Specific Condition No. 6]

**B.7. Volatile Organic Compounds (VOCs).** VOC emissions from each gas turbine shall not exceed 0.0013 lb/MMBtu when burning No. 2 fuel oil, and 0.0034 lb/MMBtu when burning natural gas. When both fuels are burned at the same time, the allowable emissions shall be prorated.  
[AO06-230614, Specific Condition No. 4]

**B.8. Volatile Organic Compounds (VOCs).** Total VOC emissions from the 24 gas turbines when operating at the permitted capacity shall not exceed 57.3 lbs/hr when the units are burning natural gas, and 21.1 lbs/hr when the units are burning oil. When both fuels are burned at the same time, the allowable emissions shall be prorated.  
[AO06-230614, Specific Condition No. 5]

**B.9. Nitrogen Oxides.** Nitrogen oxides emissions from each gas turbine shall not exceed 0.90 lb/MMBtu and 631 lbs/hr when burning No. 2 fuel oil, and 0.50 lb/MMBtu and 351 lbs/hr when burning natural gas.  
[Rule 62-296.570(4)(b)5., F.A.C.; AO06-230614]

**Excess Emissions**

**B.10.** 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.]

**B.11.** 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.]

**B.12.** 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****B.13. Determination of Process Variables.**

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

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

**Test Methods and Procedures**

{Permitting note: 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.}

**B.14. Visible Emissions.** A visible emissions compliance test shall be conducted on each combustion turbine that operates more than 400 hours in a federal fiscal year. At least one combustion turbine shall be tested per year. At least one compliance test shall be conducted on all twenty-four combustion turbines every five years, coinciding with the term of the operation permit for these turbines. At least one quarter of the tests shall be conducted while burning fuel oil, and at least one quarter of the tests shall be conducted while burning natural gas. Each visible emissions compliance test shall be conducted while the combustion turbine is operating at 90-100 percent of its capacity. **Note:** If all twenty-four combustion turbines each operate less than 400 hours on fuel oil, the annual visible emissions test of at least one (as indicated above) is not required. See specific condition B.22.

[AC06-179848, Specific Condition No. 23]

**B.15.** The test method for visible emissions 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, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.; and, AC06-179848]

**B.16. Nitrogen Oxides.** 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 each 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. ; Requested by the applicant in letter dated October 1, 1997]

**B.17.** The test method for nitrogen oxides shall be EPA Method 20, 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 & 62-297.401, F.A.C.; AO06-230614]

**B.18.** The VOC emission factors for the combustion turbines shall be confirmed every five (5) years by EPA Method 25A tests as described in 40 CFR 60, Appendix A (July 1, 1996) on any representative unit in each bank of the combustion turbines. Tests shall be conducted both while burning 100% natural gas and 100% No. 2 fuel oil.

[AO06-230614, Specific Condition No. 9]

**B.19. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operating 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 (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. 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.

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

**B.20. Applicable Test Procedures.**

(a) Required Sampling Time.

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.

[Rule 62-297.310(4)(a)2.c., F.A.C.]

**B.21. Frequency of Compliance Tests.** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

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: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
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) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it 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.; and, SIP approved]

**B.22. Visible Emissions Testing - Annual**. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

- a. only gaseous fuels; or
- b. gaseous fuels in combination with any amount of liquid fuels for less than 400 hours per year; or
- c. only liquid fuels for less than 400 hours per year.

[Rules 62-297.310(7)(a)4. & 8., F.A.C.]



**Recordkeeping and Reporting Requirements**

**B.23. Malfunction Reporting.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

**B.24. Test Reports.**

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

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

**B.25.** The permittee shall keep records of the type and quantity of fuel, gallons per hour of oil and million cubic feet per hour of natural gas used by each bank of combustion turbines for at least five (5) years. Usage shall be determined on the basis of time of operation versus total fuel consumption for each bank.

[AC06-179848, Specific Condition No. 21]

**B.26.** A written quarterly report shall be submitted to the Department of all opacity exceedances of emissions limitations specified in Rules 62-210.700 and 62-296.310, F.A.C. The report shall state the cause, period of noncompliance, and steps taken for corrective action and/or prevention of recurrence. If the opacity level cannot be determined for any reason, the report shall state the cause, duration, and action taken. All recorded data shall be maintained on file for not less than five (5) years and made available to the Department upon request.

[AO06-230614, Specific condition No. 17]

**B.27.** The emissions units are also subject to the conditions contained in **Subsection E. Common Conditions.**

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

**E.U.**

<b><u>ID No.</u></b>	<b><u>Brief Description</u></b>
-027	Fuel Oil Storage Tank #2 (80,000 bbl, Light Distillate Fuel Oil)
-028	Fuel Oil Storage Tank #3 (150,000 bbl, Light Distillate Oil)
-029	Fuel Oil Storage Tank #5 (75,000 bbl, Light Distillate Oil)
-032	Unleaded Fuel Tank (4,000 gallon, Gasoline)
-033	Diesel Fuel Tank (1,000 gallon)
-030	2 Fuel Oil Dump Tanks (2,500 gallon and 110 gallon)

**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.}

**C.1.** The maximum volatile organic compounds (VOC) emissions and volume of organic liquids handled by the tanks shall not exceed the following:

<b>E.U. ID No.</b>	<b>Organic Liquid</b>	<b>Annual Throughput Limit (Gallons)</b>	<b>VOC Emissions Limit (Tons/Year)</b>
-027	Jet A fuel/No. 2 distillate fuel oil*	54,260,842	2.33
-028	Jet A fuel	106,079,730	4.46
-029	Jet A fuel/No. 2 distillate fuel oil	54,260,842	2.29
-032	Gasoline	10,000	0.106
-033	Diesel fuel	5,000	0.001
-030	No. 2 fuel oil	300,000	0.003

\* If tank E.U. No. -027 is used to supply Jet A fuel to the two banks of combustion turbines, the total Jet A fuel handled by both tanks E.U. -027 and E.U. -028 shall not exceed 106,079,730 gallons per year, and the sum of the VOC emissions from both tanks E.U. -027 and E.U. -028 shall not exceed 6.79 tons per year.

[Rule 62-296.320(1)(a), F.A.C.; AC06-179848; AO06-230614, Specific Condition No. 1]

**Recordkeeping and Reporting Requirements**

**C.2.** The VOC emissions in tons per year, by specific tank, for all the units identified in specific condition C.1., shall be calculated for Annual Operating Report for Air Pollutant Emitting Facility purposes by the procedures described in AP-42, Section 4.3, Storage of Organic Liquids. Actual throughput and representative meteorological data shall be used for these calculations. [Rule 62-210.370(3), F.A.C.; AO06-230614, Specific Condition No. 3]

**C.3.** The permittee shall keep records of the following for at least five (5) years:

a. The amount of light distillate fuel oil obtained for the facility.

b. The amount of No. 2 fuel oil obtained for the facility.

c. The throughput, by specific tank, for all the units identified in specific condition C.1. [AO06-230614, Specific Condition No. 2]

Subsection D. This section addresses the following emissions unit.

E.U.

ID No.    Brief Description

-039        Site Solvent Usage

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

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.}

**D.1. Volatile Organic Compounds (VOCs).** Not more than 250 gallons/year, or 0.893 tons/year, VOC loss of solvent during any 12 month period shall be allowed for maintenance of this facility.

[AC06-179848, Specific condition No. 24]

Monitoring of Operations

**D.2.** The use of solvents for maintenance purposes shall be tracked and controlled during the calendar year. The VOC emissions from solvents shall be calculated by the following method: The solvent volume loss shall be equal to the total solvent purchased/in stock minus the solvent volume reclaimed/disposed of offsite. The solvent volume loss shall then be multiplied by the emission factor (mass VOC/unit of the solvent) to arrive at a tons per year value. The total solvent tons per year emission value shall be added to all other VOC sources to ensure compliance with specific condition 7, **Section II. Facility-wide Conditions.**

[AO06-230614, Specific Condition No. 10]

Recordkeeping and Reporting Requirements

**D.3.** The permittee shall keep records of the type and quantity of solvents, in gallons per year, used during maintenance throughout this facility for a minimum of five (5) years.

**Subsection E. Common Conditions.**

**E.U. ID**

<b><u>No.</u></b>	<b><u>Brief Description</u></b>
-035	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 4A)
-036	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 4B)
-037	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 5A)
-038	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 5B)
-003	Bank of 12 Combustion Turbines (Nos. 1 to 12)
-015	Bank of 12 Combustion Turbines (Nos. 13 to 24)

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

**Test Methods and Procedures**

**E.1. 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.]

**E.2. 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:

a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the

period of observation shall be equal to the duration of the batch cycle or operation completion time.

b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) Required Flow Rate Range. 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) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.

TABLE 297.310-1  
 CALIBRATION SCHEDULE

ITEM	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
Liquid in glass thermometer	Annually	ASTM Hg in glass ref. thermometer or equivalent, or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calib. liq. in glass thermometer	5 degrees F
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5 degrees F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/-0.001" mean of at least three readings Max. deviation between readings .004"
Dry Gas Meter	1. Full Scale: When received, When 5% change observed, Annually	Spirometer or calibrated wet test or dry gas test meter	2%
Meter	2. One Point: Semiannually 3. Check after each test series	Comparison check	5%

(e) Allowed Modification to EPA Method 5. 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.]

**E.3. 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.]



**Section IV. This section is the Acid Rain Part.**

**Operated by: Florida Power and Light Company**  
**ORIS code: 613**

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

The emissions units listed below are regulated under Acid Rain Part, Phase II.

**E.U. ID**

<b>No.</b>	<b>Description</b>
-001	Combined-Cycle Combustion Turbine (CT 4A)
-002	Combined-Cycle Combustion Turbine (CT 4B)
-003	Combined-Cycle Combustion Turbine (CT 5A)
-004	Combined-Cycle Combustion Turbine (CT 5B)

1. The Acid Rain Part application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these acid rain units must comply with the standard requirements and special provisions set forth in the application listed below:

a. DEP Form No. 62-210.900(1)(a), dated 07/01/95.

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

2. Sulfur dioxide (SO<sub>2</sub>) allowance allocations for each Acid Rain unit are as follows:

<b>E.U. ID No.</b>	<b>EPA ID</b>	<b>Year</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
-001	4GT1	SO <sub>2</sub> allowances, under Table 2 or 3 of 40 CFR Part 73	941*	941*	941*
-002	4GT2	SO <sub>2</sub> allowances, under Table 2 or 3 of 40 CFR Part 73	941*	941*	941*
-003	5GT1	SO <sub>2</sub> allowances, under Table 2 or 3 of 40 CFR Part 73	941*	941*	941*
-004	5GT2	SO <sub>2</sub> allowances, under Table 2 or 3 of 40 CFR Part 73	941*	941*	941*

\*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 or 3 of 40 CFR 73.

3. Emission Allowances. 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.

1. 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.

2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.

3. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rule 62-213.440(1)(c), F.A.C.]

4. Comments, notes, and justifications: None.

**Appendix E-1. List of Exempt Emissions Units and/or Activities.**

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Full Exemptions, are exempt from the permitting requirements of Chapters 62-210 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 whether a facility containing such emissions units or activities would be subject to any applicable requirements. Emissions units and pollutant-emitting activities exempt from permitting under Rule 62-210.300(3)(a), F.A.C., are also exempt from the permitting requirements of Chapter 62-213, F.A.C., provided such emissions units and activities also meet the exemption criteria of Rule 62-213.430(6)(b), F.A.C. The below listed emissions units and/or activities are hereby exempt pursuant to Rule 62-213.430(6), F.A.C.

1	Fire Protection Equipment
2	Mobile Emergency Diesel Generator
3	Fuel Gas System Miscellaneous Vents
4	Fuel Oil System Miscellaneous Vents
5	Gas Metering Area Miscellaneous Vents

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

Unregulated Emissions Units and/or Activities. 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 ‘exempt emissions units’.

Emissions Unit	Description
-xxx	Emergency Diesel Generator (Detroit Diesel, 500 kW)
-xxx	Facility-wide Fugitive Emissions for VOC's

**Appendix H-1. Permit History/ID Number Changes**

**Permit History (for tracking purposes):**

<u>E.U. ID No</u>	<u>Description</u>	<u>Permit No.</u>	<u>Issue Date</u>	<u>Expiration Date</u>	<u>Extended Date</u> <sup>1,2</sup>	<u>Revised Date(s)</u>
-035	Combined-Cycle Combustion Turbines with HRSGs	PSD-FL-145	03/14/91			07/19/93
-036						04/09/96
-037		0110037-001-				07/10/96
-038		AC				
-003	Banks of 12 Combustion Turbines	AO06-230614	06/18/93	06/04/98		07/26/95
-015		AO06-148760	08/02/93			
		AC06-179848	10/30/90	10/01/91		04/23/93, 03/23/95, 07/26/95
-027	Fuel Oil Storage Tank #2 (80,000 bbl, No. 2 Fuel Oil)	AO06-230614	06/18/93	06/04/98		07/26/95
-028	Fuel Oil Storage Tank #3 (150,000 bbl, Jet A Fuel)	AO06-230614	06/18/93	06/04/98		07/26/95
-029	Fuel Oil Storage Tank #5 (75,000 bbl, No. 2 Fuel Oil)	AO06-230614	06/18/93	06/04/98		07/26/95
-032	Unleaded Fuel Tank (4,000 gallon, Gasoline)	AO06-230614	06/18/93	06/04/98		07/26/95
-033	Diesel Fuel Tank (1,000 gallon)	AO06-230614	06/18/93	06/04/98		07/26/95
-030	2 Fuel Oil Dump Tanks (2,500 gallon and 110 gallon)	AO06-230614	06/18/93	06/04/98		07/26/95
-039	Site Solvent Usage	AO06-230614	06/18/93	06/04/98		07/26/95

**ID Number Changes (for tracking purposes):**

From: Facility ID No.: 50BRO060037; To: Facility ID No.: 0110037

**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., effective 03/20/96, allows Title V Sources to operate under existing valid permits}

Table 1-1, Air Pollutant Standards and Terms

Florida Power & Light Company  
Lauderdale Plant

Permit No.: 0110037-001-AV  
Facility ID No.: 0110037

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

E.U. ID No(s).	Brief Description	Pollutant Name	Fuel(s)	Hours/Year	Basis	Allowable Emissions		Equivalent Emissions*		Regulatory Citations	See Permit Conditions
						lb/hr/CT	4 CTs (TPY)	lbs./hour	TPY		
-035 -036 -037 -038	Combined-cycle Combustion Turbines with HRSGs	PM/PM10	Oil	8760		58	100			Rule 62-212.410, F.A.C.	A.7
			Gas	8760		14.7					
		SO2	Oil	8760	0.5% sulfur	538	1,582.80			40 CFR 60.333	A.7
			Gas	8760		4.9					
		NOx	Oil	8760	65 ppmvd @ 15% O2	422	4868			40 CFR 60.332	A.7
			Gas	8760	42 ppmvd @ 15% O2	264					
		VOC	Oil	8760	6 ppmvd	7.8	50			Rule 62-212.410, F.A.C.	A.7
			Gas	8760	1 ppmvd	1.3					
		CO	Oil	8760	33 ppmvd	100	1,489			Rule 62-212.410, F.A.C.	A.7
			Gas	8760	30 ppmvd	89					
		Opacity	Oil	8760	Not > 20%					Rule 62-212.410, F.A.C.	A.9
			Gas	8760	Not > 10%						
E.U. ID No(s).	Brief Description	Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lb/hr/CT	TPY	lbs./hour	TPY	Regulatory Citations	See Permit Conditions
-003 -015	Banks of 12 Combustion Turbines	Opacity	Oil	8760	< 20%					Rule 62-296.320(4)(b)1., F.A.C.	B.6
			Gas	8760	< 20%						B.6
		NOx	Oil	8760	0.90 lb/MMBtu	631			664.1	Rule 62-296.570(4)(b)5., F.A.C.	B.9
			Gas	8760	0.50 lb/MMBtu	351					B.9
VOC	Oil	8760	0.0013 lb/MMBtu	21.1	99.92**				A006-230614	B.7, B.8	
	Gas	8760	0.0034 lb/MMBtu	57.3						B.7, B.8	
-027	Fuel Oil Storage Tank	VOC	Oil				2.33			A006-230614	C.1
-028	Fuel Oil Storage Tank	VOC	Oil				4.46			A006-230614	C.1
-029	Fuel Oil Storage Tank	VOC	Oil				2.29			A006-230614	C.1
-032	Unleaded Fuel Tank	VOC					0.106			A006-230614	C.1
-033	Diesel Fuel Tank	VOC					0.001			A006-230614	C.1
-030	2 Fuel Oil Dump Tanks	VOC	Oil				0.003			A006-230614	C.1
-039	Site Solvent Usage	VOC					0.893			A006-230614	D.1

\*The Equivalent Emissions listed are for informational purposes only.

\*\* This is a facility wide limit, but excludes the two combined-cycle units.

**Table 2-1, Compliance Requirements**

Florida Power & Light Company Lauderdale Plant			Permit No.: 0110037-001-AV Facility ID No.: 0110037				
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID Nos.		Brief Description					
-035 -036 -037 -038		Combined-cycle Combustion Turbines with HRSGs					
Pollutant Name or Parameter	Compliance Method		Testing Time Frequency	Frequency Base Date **	Min. Compliance Test Duration	CMS*	See Permit Conditions
	Fuel(s)						
VE	Oil	EPA Method 9	Annual	1-Oct	1 Hour		A.19
	Gas	EPA Method 9	Annual	1-Oct	1 Hour		A.19
PM/PM10	Oil	EPA Method 5 or 17	Annual	1-Oct	3 Hours		A.19
SO2 (Sulfur Content of Fuel)	Oil	ASTM D 2880-96	Upon receipt of distillate oil Annual	1-Oct			A.19
	Gas	ASTM D 1072-90(94)E-1 or D 3031-81(86) or D 4084-94 or D 3246-92					A.19
NOx	Oil	EPA Method 20	Annual	1-Oct		Yes	A.19
	Gas	EPA Method 20	Annual	1-Oct		Yes	A.19
VOC	Oil	EPA Method 25A	Annual	1-Oct			A.19
	Gas	EPA Method 25A	Annual	1-Oct			A.19
CO	Oil	EPA Method 10	Annual	1-Oct			A.19
	Gas	EPA Method 10	Annual	1-Oct			A.19
CO2						Yes	
E.U. ID Nos.		Brief Description					
-003 -015		Banks of 12 Combustion Turbines					
Pollutant Name or Parameter	Compliance Method		Testing Time Frequency	Frequency Base Date **	Min. Compliance Test Duration	CMS*	See Permit Conditions
	Fuel(s)						
VE	Oil	EPA Method 9	Annual	1-Oct	1 Hour		B.15
	Gas	EPA Method 9	Annual	1-Oct	1 Hour		B.15
NOx	Oil	EPA Method 20	Annual	1-Oct			B.16, B.17
	Gas	EPA Method 20	Annual	1-Oct			B.16, B.17
VOC	Oil	EPA Method 25A	5 years	1-Oct			B.18
	Gas	EPA Method 25A	5 years	1-Oct			B.18
Notes:							
* CMS [=] Continuous Monitoring System							
** Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.							

**FIGURE 1--SUMMARY REPORT--GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE (version dated 7/96)**

[Note: This form is referenced in 40 CFR 60.7, Subpart A-General Provisions]

Pollutant (Circle One):    SO<sub>2</sub>    NO<sub>x</sub>    TRS    H<sub>2</sub>S    CO    Opacity

Reporting period dates: From \_\_\_\_\_ to \_\_\_\_\_

Company: \_\_\_\_\_

Emission Limitation: \_\_\_\_\_

Address: \_\_\_\_\_

Monitor Manufacturer: \_\_\_\_\_

Model No.: \_\_\_\_\_

Date of Latest CMS Certification or Audit: \_\_\_\_\_

Process Unit(s) Description: \_\_\_\_\_

Total source operating time in reporting period<sup>1</sup>: \_\_\_\_\_

Emission data summary <sup>1</sup>	CMS performance summary <sup>1</sup>
1. Duration of excess emissions in reporting period due to:	1. CMS downtime in reporting period due to:
a. Startup/shutdown .....	a. Monitor equipment malfunctions .....
b. Control equipment problems .....	b. Non-Monitor equipment malfunctions .....
c. Process problems .....	c. Quality assurance calibration .....
d. Other known causes .....	d. Other known causes .....
e. Unknown causes .....	e. Unknown causes .....
2. Total duration of excess emissions .....	2. Total CMS Downtime .....
3. Total duration of excess emissions x (100) / [Total source operating time] ..... % <sup>2</sup>	3. [Total CMS Downtime] x (100) / [Total source operating time] ..... % <sup>2</sup>

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in 40 CFR 60.7(c) shall be submitted.

*Note: On a separate page, describe any changes since last quarter in CMS, process or controls.*

I certify that the information contained in this report is true, accurate, and complete.

Name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Title: \_\_\_\_\_



# Phase II Permit Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31 and Chapter 62-214, F.A.C.

This submission is:  New  Revised

**STEP 1**  
Identify the source by plant name, State, and ORIS code from NADB

FPL Lauderdale Plant	FL	613
Plant Name	State	ORIS Code

**STEP 2**  
Enter the boiler ID# from NADB for each affected unit, and indicate whether a repowering plan is being submitted for the unit by entering "yes" or "no" at column c. For new units, enter the requested information in columns d and e

Compliance Plan				
a	b	c	d	e
Boiler ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	Repowering Plan	New Units  Commence Operation Date	New Units  Monitor Certification Deadline
4GT1	Yes	No	5/23/93	1/1/96
4GT2	Yes	No	5/23/93	1/1/96
5GT1	Yes	No	6/9/93	1/1/96
5GT2	Yes	No	6/9/93	1/1/96
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			

**STEP 3**  
Check the box if the response in column c of Step 2 is "Yes" for any unit

For each unit that will be repowered, the Repowering Extension Plan form is included and the Repowering Technology Petition form has been submitted or will be submitted by June 1, 1997.

Plant Name (from Step 1)

**STEP 4**

Read the standard requirements and certification, enter the name of the designated representative, and sign and date

Standard RequirementsPermit Requirements.

- (1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
  - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72, Rules 62-214.320 and 330, F.A.C. in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
  - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
  - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
  - (ii) Have an Acid Rain Permit.

Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75, and Rule 62-214.420, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1)(i) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

- (1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
  - (i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
  - (ii) All emissions monitoring information, in accordance with 40 CFR part 75;
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

Plant Name (from Step 1)

Recordkeeping and Reporting Requirements (cont.)

(iv) Copies of all documents used to complete an Acid Rain part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability.

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain part application, an Acid Rain part, or a written exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
- (6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 75, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or a written exemption under 40 CFR 72.7 or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

Certification

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment. (There are no attachments to this document)

Name		William M. Reichel
Signature	<i>William M. Reichel</i>	Date 12/4/95

over 5 (optional)  
Enter the source AIRS  
and FINDS identification  
numbers, if known.

AIRS
FINDS



March 12, 1993

Mr. C. H. Fancy, Chief  
Bureau of Air Permitting  
Department of Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, FL 32399

RE: FPL Lauderdale Repowering Project  
PA 89-26, PSD-FL-145  
Customized Fuel Monitoring Schedule

Dear Mr. Fancy:

The repowered Units 4 & 5 at the FPL Lauderdale Plant have been permitted under the Power Plant Siting Act (Chp 403 Part II F.S.) and a corresponding PSD permit. These Units consist of 4 dual fuel fired "advanced" combustion turbines, with heat recovery steam generators (HRSG). The combustion turbines are subject to New Source Performance Standards (NSPS-40 CFR 60, Subpart GG). 40 CFR 60.334(b) requires the owner/operator of any combustion turbine to monitor the sulfur and nitrogen content of the fuel as follows: 1) If the turbine fuel is supplied by a bulk storage tank then the sulfur and nitrogen content are to be determined whenever new fuel is transferred into the bulk storage tank and 2) If the turbine fuel is supplied without an intermediate bulk storage tank then daily monitoring of the sulfur and nitrogen content of the fuel is required. FPL has an intermediate bulk storage tank(s) for the light distillate oil and will test the sulfur and nitrogen content of the fuel oil as required by 40 CFR 60.334(b)(2).

Since the natural gas used by the combustion turbines does not pass through an intermediate bulk storage tank, FPL is hereby requesting a customized fuel monitoring schedule as allowed by 40 CFR 60.334(b)(2) for the Lauderdale Plant. While firing natural gas, FPL requests the following customized fuel monitoring schedule which was developed based on an EPA guidance memorandum (Attachment A):

1. Monitoring of natural gas nitrogen content shall not be required in accordance with page 2 of the EPA guidance memorandum and the attached enclosure.
2. Sulfur Monitoring

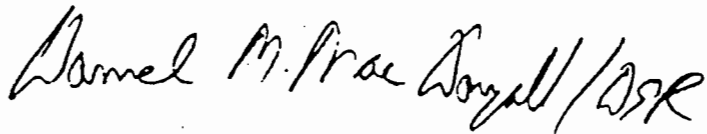
- a. Analysis for sulfur content of the natural gas shall be conducted using one of the EPA approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternate method. The reference methods are: ASTM D1072-80; ASTM D3031-81; ASTM D3245-81; and ASTM D4048-82 as referenced in 40 CFR 60.335(b)(2).
  - b. Effective on the commercial operation date of the CTs or the approval date of the customized fuel monitoring schedule whichever is later, sulfur monitoring shall be conducted twice a month for six months. If this monitoring shows little variability in the sulfur content and indicates consistent compliance with 40 CFR 60.333, then sulfur monitoring shall be conducted once per quarter for six quarters.
  - c. If the monitoring required by 2(b), above, of the sulfur content of the natural gas shows little variability and the calculated sulfur dioxide emissions, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333, sample analysis shall be conducted twice per year. This monitoring shall be conducted during the first and third quarters of each calendar year.
  - d. Should any sulfur analysis as required by items 2(b) or 2(c) above indicate noncompliance with 40 CFR 60.333, FPL will notify the Department of Environmental Regulation of such excess emission and the customized fuel monitoring schedule shall be reexamined. The sulfur content of the natural gas will be monitored weekly during the interim period while this monitoring schedule is being reexamined.
3. FPL will notify the Department of Environmental Regulation of any change in natural gas supply for reexamination of this monitoring schedule. A substantial change in natural gas quality (i.e. sulfur content varying greater than 10 grains/1000 cf gas) shall be considered as a change in natural gas supply. Sulfur content of the natural gas will be monitored weekly during the interim period when this monitoring schedule is being reexamined.
  4. Records of sampling analysis and natural gas supply pertinent to this monitoring schedule shall be retained by FPL for a period of three years, and be available for inspection by appropriate regulatory personnel.
  5. FPL will obtain the sulfur content of the natural gas from Florida Gas Transmission Company at its Brooker Lab.

Mr. C. H. Fancy  
March 12, 1993  
Page 3

Data from natural gas at the Brooker Lab site is considered representative of the sulfur content of the natural gas at the Lauderdale site since there is no additional entry point for sulfur or other elements/compounds which may affect the quality of the natural gas. The data presented in Attachment B is based upon representative samples of natural gas taken by Florida Gas Transmission.

If you or you staff have any questions about this request please call me at (407) 625-7661.

Sincerely,

A handwritten signature in black ink that reads "Daniel M. MacDougall" followed by a stylized set of initials "DSR".

Daniel M. MacDougall  
Environmental Specialist  
Florida Power & Light Company

cc: Mike Harley, FDER  
Charles Logan, FDER  
David McNeal, Region IV, EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

AUG 14 1987

OFFICE OF  
AIR AND SOILSMEMORANDUM

SUBJECT: Authority for Approval of Custom Fuel Monitoring  
Schedules Under NSPS Subpart GG

FROM: John B. Rasnic, Chief *John B. Rasnic*  
Compliance Monitoring Branch

TO: Air Compliance Branch Chiefs  
Regions II, III, IV, V, VI and IX

Air Programs Branch Chiefs  
Regions I-X

The NSPS for Stationary Gas Turbines (Subpart GG) at 40 CFR 60.334(b)(2) allows for the development of custom fuel monitoring schedules as an alternative to daily monitoring of the sulfur and nitrogen content of fuel fired in the turbines. Regional Offices have been forwarding custom fuel monitoring schedules to the Stationary Source Compliance Division (SSCD) for consideration since it was understood that authority for approval of these schedules was not delegated to the Regions. However, in consultation with the Emission Standards and Engineering Division, it has been determined that the Regional Offices do have the authority to approve Subpart GG custom fuel monitoring schedules. Therefore it is no longer necessary to forward these requests to Headquarters for approval.

Over the past few years, SSCD has issued over twenty custom schedules for sources using pipeline quality natural gas. In order to maintain national consistency, we recommend that any schedules Regional Offices issue for natural gas be no less stringent than the following: sulfur monitoring should



be bi-monthly, followed by quarterly, then semiannual, given at least six months of data demonstrating little variability in sulfur content and compliance with (60.33) at each monitoring frequency; nitrogen monitoring can be waived for pipeline quality natural gas, since there is no fuel-bound nitrogen and since the free nitrogen does not contribute appreciably to NO<sub>x</sub> emissions. Please see the attached sample custom schedule for details. Given the increasing trend in the use of pipeline quality natural gas, we are investigating the possibility of amending Subpart CC to allow for less frequent sulfur monitoring and a waiver of nitrogen monitoring requirements where natural gas is used.

Where sources using oil request custom fuel monitoring schedules, Regional Offices are encouraged to contact SSCD for consultation on the appropriate fuel monitoring schedule. However, Regions are not required to send the request itself to SSCD for approval.

If you have any questions, please contact Sally K. Farwell at FTS 382-2873.

Attachment

cc: John Cronshaw  
George Walsh  
Robert Ajax  
Earl Sale

## Conditions for Custom Fuel Sampling Schedule for Stationary Gas Turbines

1. Monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel fired in the gas turbine.
2. Sulfur Monitoring
  - a. Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are: ASTM D1072-80; ASTM D3031-81; ASTM D3246-81; and ASTM D4084-82 as referenced in 40 CFR 60.335(b)(2).
  - b. Effective the date of this custom schedule, sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content, and indicates consistent compliance with 40 CFR 60.333, then sulfur monitoring shall be conducted once per quarter for six quarters.
  - c. If after the monitoring required in item 2(b) above, or herein, the sulfur content of the fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.
  - d. Should any sulfur analysis as required in items 2(b) or 2(c) above indicate noncompliance with 40 CFR 60.333, the owner or operator shall notify the State Air Control Board of such excess emissions and the custom schedule shall be re-examined by the Environmental Protection Agency. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
3. If there is a change in fuel supply, the owner or operator must notify the State of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
4. Records of sample analysis and fuel supply pertinent to this custom schedule shall be retained for a period of three years, and be available for inspection by personnel of federal, state, and local air pollution control agencies.



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

4APT-AB

APR 08 1993

Mr. Clair H. Fancy, Chief  
Bureau of Air Permitting  
Florida Department of  
Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, FL 32399

RE: FPL Lauderdale Repowering Project PA 89-26, PSD-FL-145  
Customized Fuel Monitoring Schedule

Dear Mr. Fancy:

This letter is in response to FPL's March 12, 1993, request for approval of a customized fuel monitoring schedule for the above referenced project. This request was addressed to you and a copy was sent to Region IV. Since the authority for implementing §60.334(b) of 40 CFR Part 60, Subpart GG was not delegated to the State of Florida, we have reviewed FPL's custom fuel monitoring schedule and have determined that it is acceptable, because it conforms to custom fuel monitoring guidance (a copy of this guidance memo was included in the FPL's March 12, 1993, letter) issued by EPA Headquarters in 1987. Therefore, you may modify FPL's permit accordingly.

If you have any questions regarding the determination provided in this letter, please contact Mr. Mirza P. Baig of my staff at 404/347-5014.

Sincerely yours,

*Jewell A. Harper*  
Jewell A. Harper, Chief  
Air Enforcement Branch  
Air, Pesticides, and Toxics  
Management Division

cc: Mr. Mike Harley, FDER  
Mr. Charles Logan, FDER

MEMORANDUM

TO: Scott M. Sheplak, P.E.

FROM: Tom Cascio 

THROUGH:  Bruce Mitchell

DATE: October 30, 1997

Re: PROPOSED Permit Determination and  
PROPOSED Title V Permit No. 0110037-001-AV  
Florida Power & Light Company  
Lauderdale Plant

This permit is for the initial Title V air operation permit for the subject facility.

The DRAFT Title V Permit was revised based on written comments received from Rich Piper of the Florida Power and Light Company, and subsequent clarifying phone conversations with him. I believe all concerns have been satisfactorily addressed, and recommend that the PROPOSED Permit Determination and PROPOSED Title V Permit be sent out as attached.