

Department of **Environmental Protection**

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

David B. Struhs Secretary

P.E. Certification Statement

Permittee:

Florida Power & Light Company Lauderdale Plant

Project type: Title V Air Operation Permit Renewal

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

Scott M. Sheplak, P.E.

Registration Number: 48866

Permitting Authority:

Department of Environmental Protection Bureau of Air Regulation 111 South Magnolia Drive, Suite 4

DRAFT Permit No.: 0110037-003-AV

Tallahassee, Florida 32301

Telephone: 850/488-0144

Fax: 850/922-6979



Department of Environmental Protection

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

David B. Struhs Secretary

July 14, 2003

Mr. Rudy Sanchez Plant Manager and Responsible Official Lauderdale Plant Florida Power & Light Company 700 Universe Boulevard Juno Beach, FL 33408

Re:

Title V Air Operation Permit Renewal Application

Lauderdale Plant

DRAFT Permit Renewal No. 0110037-003-AV Facility ID: 0110037; ORIS Code: 0613

Dear Mr. Sanchez:

One copy of the DRAFT Permit for the renewal of a Title V Air Operation Permit for the Lauderdale Plant, located 2 miles West of Ravenswood Road, Fort Lauderdale, Broward County, is enclosed. The permitting authority's "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" and the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" must be published as soon as possible. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Scott M. Sheplak, P.E., at the above letterhead address. If you have any other questions, please contact Tom Cascio at 850/921-9526.

Sincerely,

Trina Vielhauer, Chief Bureau of Air Regulation

Vinut Vielhau

TV/tbc

Enclosures

In the Matter of an Application for Permit Renewal by:

Florida Power & Light Company 700 Universe Boulevard Juno Beach, FL 33408 DRAFT Permit No. 0110037-003-AV Lauderdale Plant Broward County

INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V Air Operation Permit Renewal (copy of DRAFT Permit attached) for the Title V source detailed in the application specified above, for the reasons stated below.

The applicant, Florida Power & Light Company, applied on June 13, 2003, to the permitting authority for a Title V Air Operation Permit Renewal for the Lauderdale Plant, located 2 miles West of Ravenswood Road, Fort Lauderdale, Broward County.

The permitting authority has permitting jurisdiction 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. This source is not exempt from Title V permitting procedures. The permitting authority has determined that a Title V Air Operation Permit Renewal is required to commence or continue operations at the described facility.

The permitting authority intends to issue this Title V Air Operation Permit Renewal based on the belief that reasonable assurances have been provided to indicate that operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.087, F.S., and Rules 62-110.106 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL." The notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the permitting authority at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax: 850/922-6979, within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

The permitting authority will issue the PROPOSED Permit, and subsequent FINAL Permit, in accordance with the conditions of the attached DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000

(Telephone: 850/245-2242; Fax: 850/245-2303). Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;
- (c) A statement of how and when each petitioner received notice of the agency action or proposed action;
 - (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief;
- (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and,
- (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation will not be available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply to the Department of Environmental Protection for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information:

- (a) The name, address, and telephone number of the petitioner;
- (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any;
 - (c) Each rule or portion of a rule from which a variance or waiver is requested;

- (d) The citation to the statute underlying (implemented by) the rule identified in (c) above;
- (e) The type of action requested;
- (f) The specific facts that would justify a variance or waiver for the petitioner;
- (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and,
- (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2), F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the United States Environmental Protection Agency and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Trina Vielhauer, Chief

Bureau of Air Regulation

CERTIFICATE OF SERVICE

Rudy Sanchez, Florida Power & Light Company

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL (including the PUBLIC NOTICE and Statement of Basis) were sent by U.S. mail on the same date to the person(s) listed or as otherwise noted:

Kennard F. Kosky, P.E., Golder Associates, Inc. Kevin Washington, Florida Power & Light Company

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE TITLE V. AIR OPERATION PERMIT RENEWAL (including the DRAFT Permit package) were sent by INTERNET E-mail on the same date to the person(s) listed:

Thomas Tittle, Southeast District Office Daniela Banu, Broward County Department of Planning and Environmental Protection U.S. EPA, Region 4

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on

this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency Clerk, receipt of which is hereby acknowledged.

(Clerk)

PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DRAFT Permit Project No. 0110037-003-AV

Lauderdale Plant

Broward County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V Air Operation Permit Renewal to the Florida Power & Light Company for the Lauderdale Plant located 2 miles West of Ravenswood Road, Fort Lauderdale, Broward County. The applicant's name and address are: Mr. Rudy Sanchez, Plant Manager, Florida Power & Light Company, P.O. Box 14000, Juno Beach, FL 33408.

The permitting authority will issue the PROPOSED Permit, and subsequent FINAL Permit, in accordance with the conditions of the DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 of the Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2242; Fax: 850/245-2303). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of the notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the applicable time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code (F.A.C.).

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address and telephone number of the petitioner; name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how petitioner's substantial rights will be affected by the agency determination;
 - (c) A statement of how and when the petitioner received notice of the agency action or proposed action;
 - (d) A statement of all disputed issues of material fact. If there are none, the petition must so state;

- (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle petitioner to relief;
- (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and,
- (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available for this proceeding.

In addition to the above, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Permitting Authority:

Department of Environmental Protection Bureau of Air Regulation 111 South Magnolia Drive, Suite 4 Tallahassee, Florida 32301 Telephone: 850/488-0114 Fax: 850/922-6979

Affected District/Local Program:

Broward County Department of Planning and Environmental Protection Air Quality Division 218 Southwest First Avenue Fort Lauderdale, Florida 33301 Telephone: 954/519-1220

Fax: 954/519-1495

The complete project file includes the DRAFT Permit Renewal, the application for renewal, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott M. Sheplak, P.E., at the above address, or call 850/921-9532, for additional information.

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	A. Signature A. Signature Agent Addressee B. Received by (Printed Name) C. Date of Delivery
Article Addressed to:	D. Is delivery address different from item 1? Yes If YES, enter delivery address below: No
Mr. Rudy Sanchez Plant Manager and Responsible Official Lauderdale Plant Florida Power & Light Company	
700 Universe Boulevard Juno Beach, Florida 33408	3. Service Type AM Certified Mail □ Express Mail □ Registered □ Return Receipt for Merchandise □ Insured Mail □ C.O.D.
	4. Restricted Delivery? (Extra Fee) ☐ Yes
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STATEMENT OF BASIS

Title V Permit Renewal No. 0110037-003-AV
Florida Power and Light Company
Lauderdale Plant
Broward County

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

This facility consists primarily of two combined-cycle generating units (with four combustion turbines), two banks of twelve simple-cycle gas turbine units, and seven fuel storage tanks. Each combined-cycle unit has a net capability of 430 MW. Each bank of simple-cycle gas turbines has a net capability of 504 MW.

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. 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.

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 facility holds ORIS code 0613 under the federal Acid Rain Program.

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. 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.

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

Based on the Title V permit renewal application received on June 13, 2003, this facility is a major source of hazardous air pollutants (HAPs).

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

Title V Air Operation Permit Renewal DRAFT Permit No. 0110037-003-AV

Permitting Authority:
State of Florida
Department of Environmental Protection
Division of Air Resource Management

Bureau of Air Regulation
Title V Section

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

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

Compliance Authority:
Broward County Department of Planning and Environmental Protection
Air Quality Division

218 Southwest First Avenue Fort Lauderdale, Florida 33301

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

Title V Air Operation Permit Renewal DRAFT Permit No. 0110037-003-AV

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Permittee:

Florida Power & Light Company 700 Universe Boulevard Juno Beach, FL 33408 DRAFT Permit No. 0110037-003-AV

Facility ID No. 0110037

SIC Nos.: 49, 4911

Project: Title V Air Operation Permit Renewal

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.

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 I-1, List of Insignificant Emissions Units and/or Activities
Appendix TV-4, Title V Conditions (version dated 2/12/02)
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 Part Renewal Application, signed by the Designated Representative on April 7, 2003.

Customized Fuel Monitoring Schedule (dated March 12, 1993)

Effective Date: January 1, 2004

Renewal Application Due Date: July 5, 2008

Expiration Date: December 31, 2008

Joseph Kahn, P.E., Acting Director, Division of Air Resource Management

Section I. Facility Information.

Subsection A. Facility Description.

This facility consists primarily of two combined-cycle generating units (Unit 4 and Unit 5), two banks of twelve simple-cycle gas turbine units, and eight 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/insignificant emissions units and/or activities.

Based on the Title V permit renewal application received on June 13, 2003, this facility is a major source of hazardous air pollutants (HAPs).

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

E.U. ID No.	Brief Description
-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)
-030	2 Fuel Oil Dump Tanks (2,500 gallon and 110 gallon)
-032	Unleaded Fuel Storage Tank (4,000 gallon, Gasoline)
-033	Diesel Fuel Storage Tank (1,000 gallon)
-039	Site Solvent Usage

电器系统	Unregulated Emissions Units and/or Activities
-xxx	Facility-wide Fugitive Emissions for VOC's
-xxx	Auxiliary Boiler used to provide steam to the turbine shaft seals during a cold start of
	the plant. Maximum heat input rate is 15.5 mmBtu/hr. It is fired with propane and
	limited to an annual fuel usage of one million gallons pursuant to Rule 62-
	210.300(3)(a)2., F.A.C. (categorical exemption).
-xxx	Propane Fuel Storage Tank

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

DRAFT Permit No. 0110037-003-AV

Florida Power & Light Company Lauderdale Plant Page 3

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
Statement of Basis

These documents are on file with the permitting authority: Title V Permit Renewal Application received on June 13, 2003.

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

- 1. Appendix TV-4, Title V Conditions, is a part of this permit. {Permitting note: Appendix TV-4, Title V Conditions, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}
- 2. Not federally enforceable. General Pollutant Emission Limiting Standards.

 Objectionable Odor Prohibited. No person shall 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).
- a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

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

and,

- b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C. [40 CFR 68]
- 5. <u>Unregulated Emissions Units and/or Activities.</u> Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit. [Rule 62-213.440(1), F.A.C.]
- 6. <u>Insignificant Emissions Units and/or Activities.</u> Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit. [Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]

- 7. <u>Volatile Organic Compounds (VOCs).</u> The total VOC emissions from all emissions units at this facility (with the exception of the two combined-cycle units, Unit 4 and Unit 5, that are excluded from this specific condition) shall not exceed 99.92 tons per year. See Specific Conditions **B.7.**, **B.8.**, **C.1.**, **C.2.**, **D.1.**, and **D.2.** [AC06-179848; and AO06-230614, Specific Condition 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 0110037-002-AV, Specific Condition 8.]
- 9. Not federally enforceable. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility shall include the following operational measures:
- **a.** In order to perform sandblasting on fixed plant equipment in the small sandblast facility, temporary sandblasting enclosures shall be constructed as necessary. Containment devices shall be used to capture and contain sand.
- **b.** Maintenance of paved areas shall be performed as needed.
- c. Mowing of grass and care of vegetation shall be performed on a regular basis.
- **d.** Access to plant property by unnecessary vehicles shall be controlled and limited.
- **e.** Bagged chemical products shall be stored in weather-tight buildings until they are used. Spills of powdered chemical products shall be cleaned up as soon as practical.

[Rule 62-296.320(4)(c)2., F.A.C.; and proposed by applicant in the Title V permit renewal application received June 13, 2003.]

- 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:

Broward County Department of Planning and Environmental 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
Air & EPCRA Enforcement Branch, Air Enforcement Section
61 Forsyth Street
Atlanta, GA 30303
Phone: 404/562-9155

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

13. <u>Statement of Compliance</u>. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C. [Rules 62-213.440(3) and 62-213.900, F.A.C.]

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

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

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

Section III. Emissions Unit(s) and Conditions.

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

E.U. ID No.	Brief Description
-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:

<u>General</u>

- A.1. <u>Definitions.</u> 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; and Rule 62-204.800(7)(a), F.A.C.]
- **A.2.** <u>Circumvention.</u> 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.; and PSD-FL-145, Specific Condition 1.]

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

- **A.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.; and 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.; and PSD-FL-145, Specific Condition 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.}

{Permitting note: Unless otherwise specified, the averaging times for Specific Conditions A.7. and A.9. are based on the specified averaging time of the applicable test method.}

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:

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

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 5.]

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

		Maximum Potential		
		Emissions (@40°F)		
Pollutant	Fuel	lb/hr/CT	4 CTs (TPY)	
H, SO Acid	Gas	0.042	196	
Mist			(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 6.]

- **A.9.** <u>Visible Emissions.</u> Visible emissions shall neither exceed 10% opacity while burning natural gas, nor exceed 20% opacity while burning distillate oil. [PSD-FL-145, Specific Condition 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; and 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 consecutive 12-month period. The 12-month average sulfur content shall be calculated as a weighted average based upon the sulfur content of the oil and the amount burned on a daily basis. 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.

[Rule 62-213.440, F.A.C.; applicant agreement with EPA on March 3, 1998; and PSD-FL-145, Specific Conditions 5. and 11.]

A.14. <u>Nitrogen Oxides.</u> 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 8.]

Excess Emissions

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

- 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. Except as specified in this condition for visible emissions testing on fuel oil, annual compliance tests shall be performed on each combustion turbine unit 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
	Test Method		
Sulfur content	ASTM D 2880-96*		X
	ASTM D 1072-90(94)	X	
	E-1,		
	ASTM D 3031-81(86),	l	
	ASTM D 4084-94, or		
	ASTM D 3246-92*		

^{*}or the latest edition.

The owner or operator shall conduct testing for visible emissions while firing fuel oil, using EPA Method 9, for each combustion turbine unit upon that turbine's exceeding 400 hours of operation on fuel oil, and every 150 hours of operation on fuel oil thereafter, in any given federal fiscal year (October 1 through September 30). Such tests shall be performed within 15 days of exceeding such operating hours, to allow for prior notification of the tests. [Rule 62-213.440, F.A.C., applicant agreement with EPA on March 3, 1998, PSD-FL-145, Specific Condition 10.; and Administrative Permit Correction dated November 7, 2000.]

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.; and PSD-FL-145, Specific Condition 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_X 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 ± 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 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 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 <u>physical or operational change</u> 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 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 Planning and Environmental Protection office.

[PSD-FL-145, Specific Condition 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.; and 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 9 Btu. [AO06-148762]

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

- **B.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 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.}

{Permitting note: Unless otherwise specified, the averaging times for Specific Conditions B.6. through **B.9.** are based on the specified averaging time of the applicable test method.

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

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

Regardless of the number of hours of operation on fuel oil, 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 such tests shall be conducted while burning fuel oil, and at least one quarter of such tests shall be conducted while burning natural gas.

[Rule 62-213.440, F.A.C.; applicant agreement with EPA on March 3, 1998; and AC06-179848, Specific Condition 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.; and 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.; and AO06-230614.]
- **B.18.** The VOC emission factors for the combustion turbines shall be confirmed every five (5) years by EPA Method 25A and/or Method 18 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 9.; and Administrative Permit Correction dated November 7, 2000.]
- **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.** <u>Frequency of Compliance Tests</u>. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
- (a) General Compliance Testing.
 - 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) <u>Special Compliance Tests</u>. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- (c) <u>Waiver of Compliance Test Requirements</u>. 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.** <u>Visible Emissions Testing Annual</u>. 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. and 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 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 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.	
ID No.	Brief Description
-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)
-030	2 Fuel Oil Dump Tanks (2,500 gallon and 110 gallon)
-032	Unleaded Fuel Storage Tank (4,000 gallon, Gasoline)
-033	Diesel Fuel Storage Tank (1,000 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:

E.U ID No.	Organic Liquid	Annual Throughput Limit (Gallons)	VOC Emissions Limit (Tons/Year)
-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
-030	No. 2 fuel oil	300,000	0.003
-032	Gasoline	10,000	0.106
-033	Diesel fuel	5,000	0.001

^{*} 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; and AO06-230614, Specific Condition 1.]

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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. Also see Specific Condition 7. in the Facility-wide Conditions Section. [Rule 62-210.370(3), F.A.C.; and AO06-230614, Specific Condition 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 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. Also see Specific Condition 7. in the Facility-wide Conditions Section. [AC06-179848, Specific Condition 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 derive at a tons per year value. The total solvent tons per year emission value shall be added to all other VOC sources at the facility to ensure compliance with Specific Condition 7. in Section II., Facility-wide Conditions, of this permit. Specific Condition 7. limits facility-wide VOC emissions to 99.92 tons per year. Note that the combined-cycle units, Unit 4 and Unit 5, are excluded from Specific Condition 7. [AO06-230614, Specific Condition 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. [AO06-230614, Specific Condition 11.]

Subsection E. Common Conditions.

E.U. ID	
No.	Brief Description
-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

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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) <u>Calibration of Sampling Equipment</u>. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.

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,	Spirometer or calibrated	2%
Meter	When 5% change observed, Annually 2. One Point: Semiannually	wet test or dry gas test meter	
	3. Check after	Comparison check	5%

each test series

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- (e) <u>Allowed Modification to EPA Method 5</u>. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.]
- **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: 0613

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

The emissions units listed below are regulated under Phase II of the federal Acid Rain Program.

E.U. ID,	Description
-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 renewal 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), signed by the Designated Representative on April 7, 2003. [Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

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

E.U. ID No.	EPA ID	Year	2004	2005	2006	2007	2008
-001	4GT1	SO2 allowances, under Table 2 of 40 CFR	948*	948* 948* 948*		948*	948*
		Part 73					
-002	4GT2	SO2 allowances, under Table 2 of 40 CFR Part 73	948*	948*	948*	948*	948*
-003	5GT1	SO2 allowances, under Table 2 of 40 CFR Part 73	948*	948*	948*	948*	948*
-004	5GT2	SO2 allowances, under Table 2 of 40 CFR Part 73	948*	948*	948*	948*	948*

^{*}The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 of 40 CFR 73.

- 3. 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. <u>Fast-Track Revisions of Acid Rain Parts</u>. Those Acid Rain sources making a change described at Rule 62-214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, Fast-Track Revisions of Acid Rain Parts. [Rule 62-213.413, F.A.C.]
- **5.** Comments, notes, and justifications: None.

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

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

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

	Brief Description of Emissions Units and/or Activities
1	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
6	Water Plant Analysis Room Exhaust Hood
7	Water Treatment Vents
8	Hazardous Waste Building Roof Vents
9	Fire Pump House Vent
10	Machine Shop Fans
11	Plant Service Building Roof Exhaust Fans
12	Waste Water Treatment Basins and Vents
13	Waste Water Treatment Control Building Roof Vents
14	Combustion Turbine and Accessories Vents
15	Steam Turbine System Vents
16	Circulating and Open Cooling Water System Vents
17	Bulk Gas Supply Vents
18	HRSG Feedwater and Steam, System Vents

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

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

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

E.U. ID No.	Brief Description of Emissions Units and/or Activity
-xxx	Facility-wide Fugitive Emissions for VOC's
-xxx	Auxiliary Boiler used to provide steam to the turbine shaft seals during a cold start of the plant. Maximum heat input
	rate is 15.5 mmBtu/hr. It is fired with propane and limited to an annual fuel usage of one million gallons pursuant to Rule 62-210.300(3)(a)2., F.A.C. (categorical exemption).
-xxx	Propane Fuel Storage Tank

Appendix H-1. Permit History/ID Number Changes

Permit History (for tracking purposes):

E.U. ID No	Description	Permit No.	Issue Date	Expiration Date	Extended Date ^{1,2}	Revised Date(s)
-035	Combined-Cycle Combustion	PSD-FL-145	03/14/91			07/19/93
-036	Turbines with HRSGs					04/09/96
-037		0110037-001-AC				07/10/96
-038						
-003	Two Banks of 12 Combustion	AO06-230614	06/18/93	06/04/98		07/26/95
-015	Turbines	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	AO06-230614	06/18/93	06/04/98	·	07/26/95
-028	Fuel Oil Storage Tank #3	AO06-230614	06/18/93	06/04/98		07/26/95
-029	Fuel Oil Storage Tank #5	AO06-230614	06/18/93	06/04/98		07/26/95
-030	2 Fuel Oil Dump Tanks	AO06-230614	06/18/93	06/04/98		07/26/95
-032	Unleaded Fuel Storage Tank	AO06-230614	06/18/93	06/04/98		07/26/95
-033	Diesel Fuel Storage Tank	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
	-035, -036, -037, -038, -003, and -	0110037-001-AC	07/16/96			
	All of the above.	0110037-002-AV	01/01/99	12/31/03		

ID Number Changes (for tracking purposes):

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

Notes:

{Rule 62-213.420(1)(b)2., F.A.C., effective 03/20/96, allows Title V Sources to operate under existing valid permits}

^{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.

Table 1-1, Air Pollutant Standards and Terms

Florida Power & Light Company Lauderdale Plant

Permit No. 0110037-003-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.	Brief					Allowable	Emissions	Equivalent	Emissions*	Γ	See Permit
ID No(s).	Description	Pollutant Name	Fuel(s)	Hours/Year	Basis	lb/hr/CT	4 CTs (TPY)	≰lbs./hour.≸	TPY	Regulatory Citations	Conditions
-035	Combined-cycle	PM/PM10	Oil	8760		58	100			Rule 62-212.410, F.A.C.	A.7
-036	Combustion Turbines		Gas	8760		14.7					
-037	with HRSGs	SO2	Oil	8760	0.5% sulfur	538	1,582.80			40 CFR 60.333	A.7
-038			Gas	8760	<u> </u>	4.9				·	
		NOx	Oil	8760	65 ppmvd @ 15% O2	422	4868			40 CFR 60.332	A .7
1			Gas	8760	42 ppmvd @ 15% O2	264					
1		VOC	Oil	8760	6 ppmvd	7.8	50			Rule 62-212.410, F.A.C.	A. 7
1			Gas	8760	1 ppmvd	1.3					
1		co	Oil	8760	33 ppmvd	100	1,489			Rule 62-212.410, F.A.C.	A.7
			Gas	8760	30 ppmvd	89					
ļ		SAM	Oil	8760		0.042	196			Rule 62-212.410, F.A.C.	A.8
			Gas	8760				<u> </u>			
		H114	Oil	8760		0.0192	0.3			Rule 62-212.410, F.A.C.	A.8
			Gas	8760		0.021					
		FL	Oil	8760	·	0.0535	0.23			Rule 62-212.410, F.A.C.	A.8
		H021	Oil	8760	-	0.0041	0.02			Rule 62-212.410, F.A.C.	A.8
		Opacity	Oil	8760	Not > 20%					Rule 62-212.410, F.A.C.	A.9
			Gas	8760	Not > 10%					,	
· E.U.	Brief				Allowable	Emissions		Equivalent	Emissions:		See Permit
ID No(s).	Description	Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lb/hr/CT	TPY	*lbs:/houra	TPY	Regulatory Citations	Conditions
-003	Banks of 12	Opacity	Oil	8760	< 20%					Rule 62-296.320(4)(b)1., F.A.C.	B.6
-015	Combustion Turbines	, ,	Gas	8760	< 20%						B.6
		NOx	Oil	8760	0.90 lb/MMBtu	631			6641.1	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**			AO06-230614	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			AO06-230614	C.1
-028	Fuel Oil Storage Tank	VOC	Oil				4.46			AO06-230614	C.1
-029	Fuel Oil Storage Tank	VOC	Oil				2.29			AQ06-230614	C.1
-032	Unleaded Fuel Tank	VOC					0.106			AO06-230614	C.1
-033	Diesel Fuel Tank	voc					0.001			AO06-230614	C.1
-030	2 Fuel Oil Dump Tanks	VOC	Oil				0.003			AO06-230614	C.1
-039	Site Solvent Usage	voc					0.893			AO06-230614	D.1

[&]quot;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

Permit No. **0110037-003-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		Combined-cycle Comb					
-036		with HRS	iGs				
-037							
-038			•				
		·	Testing	Frequency	Min. Compliance		See
Pollutant Name		Compliance	Time	Base	Test		Permit
or Parameter	Fuel(s)	Method	Frequency	Date **	Duration	CMS*	Conditions
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	Oil	ASTM D 2880-96	Upon receipt of distillate oil				A.19
(Sulfur Content of Fuel)	Gas	ASTM D 1072-90(94)E-1	Annual	1-Oct			A.19
		or D 3031-81(86) or					
		D 4084-94 or					
		D 3246-92					
NOx	· Oil	EPA Method 20	Annual	1-Oct		Yes	A.19
	Gas	EPA Method 20	Annual	1-Oct		Yes	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	Banks of 12 Combustion Turbines						
-015							
			Testing	Frequency	Min. Compliance		See
Pollutant Name		Compliance	Time	Base	Test		Permit
or Parameter	Fuel(s)	Method	Frequency	Date **	Duration	CMS*	Conditions
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 and/or 18	5 years	1-Oct			B.18
	Gas	EPA Method 25A and/or 18	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.

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Phase II Acid Rain Part 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

,

Compliance

Plan

Revised

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

Plant Name Lauderdale Plant State FL ORIS Code 613

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

Unit ID#	Unit will hold allowances in accordance	Repowering Plan	New Units	New Units Monitor Certification Deadline	
	with 40 CFR 72.9(c)(1)		Commence Operation Date		
					
4GT1		NO	N/A	N/A	
	Yes				
4GT2	Yes	МО	N/A	N/A	
5GT1	Yes	NO	N/A	N/A	
5GT2	Yes	NO	N/A	N/A	
	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 is being repowered, the Repowering Extension Plan form is included.

STEP 4 Read the standard requirements and certification, enter the name of the designated representative, and sign and date

Plant Name (from Step 1) Lauderdale Plant

Standard Requirements

Acid Rain Part 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 part application (including a compliance plan) under 40 CFR part 72 and 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 Department determines is necessary in order to review an Acid Rain part application and issue or deny an Acid Rain part;
- 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 part application or a superseding Acid Rain part issued by the Department; and (ii) Have an Acid Rain Part.

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

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.
- Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the
- (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 part application, the Acid Rain part, or an exemption under 40 CFR 72.7, 72.8, or 72.14 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.
- 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 EPA or the Department:
 - (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, provided that to the extent that 40 CFR part 75 provides for a 3year period for recordkeeping, the 3-year period shall apply;
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and.

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 an exemption under 40 CFR 72.7, 72.8 or 72.14, 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 40 CFR 76.11 (NO_X averaging 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 of the 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, 76, 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 an exemption under 40 CFR 72.7, 72.8, or 72.14 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 personalty 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.

Name: Nancy Kierspe					
Signature Hawy	y Kierspe	Date 4-7-03			



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,

Daniel M. MacDougall
Environmental Specialist

Florida Power & Light Company

cc: Mike Harley, FDER Charles Logan, FDER

David McNeal, Region IV, EPA



United States Envillanmental Protection agency Washington, D.C. 20460

AUG 1 4 1027

waa f THE PROMISE

HEHORANDUM

Authority for Approval of Custom Fuel Monitoring BUBJECTI

schadular Under HSPS Support GG

FROH:

John B. Rasnia, Chief

compliance Konitoring Branch

101

Air Compliance Branch Chiefa Regions II, III, IV, V, VI and IX

Air Programs Branch Chiefe

Regions I-X

The MEPS for Stationary Gas Turbines (Subpart GG) at 40 CFZ 60.334(b)(2) allows for the development of custom fuel mentioning echodules as an alternative to daily monitoring of the pultur and nitrogen content of fuel fired in the Curbines. Regional Offices nitrogen content of ruel first in the furbines. Regional offices have been forwarding custom fuel monitoring schodules to the Stationary Source Compliance Division (SSCD) for consideration since it was understood that sutherity for approval of these consolutes 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 sutherity to approve subpart to custom fuel ponitoring schodules. Suprefers it is no longer necessary to forward these requests to Readousters for approvel. requests to Readquesters for approval.

Over the past far years, 6500 has immed ever twenty ouston achedules for sources using pipeline quality natural gas. In order to maintain national consistency, we recommend that any schodules Regional Offices issue for natural gap be no loca stringent then the following: sulfur monitoring should

2

be blacethly, tollowed by quarterly, then contennual, given at least six nonths of data describing little variability in aultur content and compliance with \$60.313 at each monitoring fraquency; nitrogen nonitoring 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. emications. Please see the attached sample custom schedule for datails. Given the increasing trend in the use of pipeline quality natural gas, we are investigating the possibility of exanding subpart of to allow for loss frequent sulfur monitoring and a volver of nitrogen monitoring requirements where netural gas is need.

Where sources using all request auctom fuel monitoring achecules. Regional Offices are encouraged to contact SECD for consultation on the appropriate fuel monitoring echecule. However, Regions are not required to send the request itemat to asch for approval.

If you have any questions, please contact Sally M. Parvell at ITS 182-2875.

Attachment

co: John Cronshav Coorge Walch Robert Ajax Earl Salo

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Conditions for Custom Fuel Sampling Schedule for Stationary Gas Turbines

- 1. Honitoring of fuel nitroyen 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 experient operator shall notify the State Air Control Sound.) 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 sust notify the State of such change for re-examination of this custom schedule. A substantial change in feel quality shall be considered as a change in feel 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 evaluable for inspection by personnel of federal, state, and local air pollution control agencies.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

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

4APT-AB

APR 0 8 1993

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

RE: PPL 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 PPL'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, 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

DATE:

July 8, 2003

Re:

Intent Package for DRAFT Permit Renewal No. 0110037-003-AV

Florida Power & Light Company

Lauderdale Plant

Permit Clock: Application was deemed complete on June 13, 2003.

Day 60 from the completion date is August 12, 2003.

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

This facility reported that all emissions units were in compliance at the time of the application.

I recommend that this Intent to Issue be sent out as attached.