Florida Power & Light Company, 200-300 Broadway, Riviera Beach, FL 33404

FPL

October 7, 2005

Mr. Ajaya Satyal
Palm Beach County Health Dept.
Air Section
901 Evernia Street
P.O. Box 29
West Palm Beach, Fl. 33402-0029

RE: **Florida Power & Light Company**
Riviera Power Plant
Monthly Fuel Analysis Report
Title V Permit No.: 0990042-001-AV

As required by the Title V Air Operation Permit for the units at the above facility, enclosed are the analyses of fuel oil fired for the month of September, 2005 sampling period.

Specific condition A.37.f.(1) of our Title V Air Operation Permit requires the reporting of used oil received and burned each month. No used oil was received or burned at this facility during this calendar month or in the previous 12-month period.

If you have any questions regarding the analyses, please call me at (561) 845-3154.

Sincerely,

Jeff Smith
Production Manager
Riviera Plant

Enclosures (1)

CC: Department of Environmental Protection

Testing Facility	State of Florida Certification Numbers	Customer Address
FPL Central Laboratory 6001A Village Blvd. West Palm Beach, Fl 33407 Phone # (561) 640-2055	Environmental Chemistry: E56078 CompQAP/QA Manual #: 920041	Riviera Power Plant

Report of Analyses For: Riviera Power Plant - Monthly #6 "As Fired" - Sept.

Lab Sample #	Field Sample #	Parameter	Sample Collection Date	Analysis Date	EPA Method	Result / Units	Qual.	MDL
05-PRV-09-0001		API Gravity @ 60 F	09/30/2005	10/04/2005	ASTMD4052	11.4 DEG.	-	N/A
05-PRV-09-0001		Ash Content	09/30/2005	10/04/2005	ASTMD473	0.04 %	-	N/A
05-PRV-09-0001		Heat of Combustion (per Barrel)	09/30/2005	10/04/2005	ASTMD240	6376 MBTU	-	N/A
05-PRV-09-0001		Heat of Combustion (per pound)	09/30/2005	10/04/2005	ASTM D240	18407 BTU	-	N/A
05-PRV-09-0001		Metals: Calcium (in fuel)	09/30/2005	10/04/2005	ICP	18 MG/KG	-	n/a
05-PRV-09-0001		Metals: Magnesium (in fuel)	09/30/2005	10/04/2005	D5683	<10 MG/KG	U	n/a
05-PRV-09-0001		Metals: Phosphorus (in fuel)	09/30/2005	10/04/2005	D5683	<10 MG/KG	U	n/a
05-PRV-09-0001		Metals: Potassium (in fuel)	09/30/2005	10/04/2005	D5883	<10 MG/KG	U	n/a
05-PRV-09-0001		Metals: Sodium (in fuel)	09/30/2005	10/04/2005	ASTMD5683	<10 MG/KG	U	n/a
05-PRV-09-0001		Metals: Vanadium (in fuel)	09/30/2005	10/04/2005	ASTMD5683	56 MG/KG	-	n/a
05-PRV-09-0001		Metals: Zinc (in fuel)	09/30/2005	10/04/2005	ICP	<10 MG/KG	U	n/a
05-PRV-09-0001		Sulfur content	09/30/2005	10/04/2005	ASTMD4294	0.94 %	-	N/A
05-PRV-09-0001		Sulfur Dioxide Emission Rate	09/30/2005	10/04/2005	Calc.	1.0 #/MMBTU	-	N/A

Samples Analyzed By: Elisa Ostertag
Samples Approved By: Bryon T. Billman
Result Comments: U - Analyzed but not detected.
Sample Comments:
Parameter Comments:
Routing: Gary Moncrief PRV/PRV

File Index: A-PRV-1

18AA

bcc: Bill Brannen PRV
Tony Renk PRV
J.Hampp JES/JB
File PRV Title V (JES/JB)

Mr. Scott M. Sheplak, P. E.
State of Florida
Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Tom Tittle
400 Congress Ave.
P.O.Box 15425
West Palm Beach, Fl. 33416

James E. Stormer, Supervisor
Air Pollution Control Section
Palm Beach Public Health Unit
P.O. Box 29
West Palm Beach, Fl. 33402

2/1/00 cc: Scott Sheplak

FPL

January 25, 2000

Mr.Clair Fancy, Chief
Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Rd. Tallahassee, Florida 32399-2400

Re: Title V Permit No. 0990042-001-AV
FPL Riviera Plant Administrative Change

Dear Mr.Fancy:

Pursuant to a conversation on January 13, 2000, between Scott Sheplak of your Department and FPL's Mary Archer, an administrative change was discussed concerning the sulfur concentration in fuel oil burned during the annual particulate and visible emissions tests. The following language is proposed to avoid unnecessary emissions related specifically to unit testing. As this additional language does not relax the permit requirements it accommodates the administrative change definition.

Current language in Permit No. 0990042-001-AV

A. 26.a. When Burning Fuel Oil Up To 2.5% Sulfur. When only fuel oil containing less than or equal to 2.5% sulfur, by weight, is fired (or co-fired with natural gas) in an emissions unit, particulate matter and visible emissions tests during soot blowing and steady-state operation shall be performed on such emissions unit while firing solely fuel oil containing at least 90% of the average sulfur content of the fuel oils fired in the previous 12 month period, except that such test shall not be required to be performed during any year that testing is performed in accordance with Specific Condition **A.26.b.**

Recommended language change:

A. 26.a. When Burning Fuel Oil Up To 2.5% Sulfur. When only fuel oil containing less than or equal to 2.5% sulfur, by weight, is fired (or co-fired with natural gas) in an emissions unit, particulate matter and visible emissions tests during soot blowing and steady-state operation shall be performed on such emissions unit while firing solely fuel oil. One of the following two requirements must be met for the particulate matter and visible emissions testing: 1) The fuel oil fired must contain~~ing~~ at least 90% of the average sulfur content of the fuel oils fired in the previous 12 month period, or 2) If fuel oil currently being burned does not meet this requirement, fuel oil of lesser sulfur content may be fired provided additional testing is performed when the sulfur content in the fuel oil being burned increases by more than 0.20%. If fuel oil is fired containing greater than

0.20% sulfur above the percentage sulfur concentration fired during the most recent test, additional particulate matter and visible emissions tests shall be performed as soon as practicable, but in no event more than 60 days after firing such higher sulfur fuel oil, except that such test shall not be required to be performed during any year that testing is performed in accordance with Specific Condition **A.26.b.**

Thank you for your prompt attention to the issue raised in this correspondence. Please do not hesitate to contact Mary Archer at (561) 691-7057 regarding this issue.

Sincerely,

William F. Brannen

William F. Brannen
Plant Manager, Riviera Power Plant
Florida Power & Light Company

Date: 6/9/98 3:18:00 PM
From: Mary Fillingim TAL
Subject: New Posting #0990042
To: See Below

There is a new posting on Florida's website.

0990042001AV
RIVIERA

Final

If you have any questions, please feel free to contact me.

Thanks,
Mary

To: adams yolanda
To: pierce carla
To: Barbara Boutwell TAL
To: Scott Sheplak TAL
To: Terry Knowles TAL
To: danois gracy
To: Elizabeth Walker TAL
CC: Susan DeVore TAL

Enclosure 6

U.S. EPA Region 4 Objections
Proposed Part 70 Operating Permit
Florida Power & Light, Riviera Plant

EPA objects to the issuance of this permit due to the following reasons:

(1) Periodic Monitoring - The permit does not require sufficient periodic monitoring to ensure compliance with the applicable opacity standard. The Riviera permit only requires an annual one hour Method 9 visible emissions reading. This does not constitute adequate periodic monitoring to ensure continuous compliance with the opacity standard. Since continuous opacity monitors (COMs) have been installed on the units in question, these monitors should be used to ensure compliance with the opacity standard. Requiring that the opacity monitors be used for conducting periodic monitoring imposes little or no additional burden on FP&L.

(2) Periodic Monitoring - The permit does not require sufficient periodic monitoring to ensure compliance with the applicable particulate matter standard. The Riviera permit requires an annual emission test to verify compliance with the applicable three-hour particulate emission standard. It has not been demonstrated that an annual emission test alone will constitute the basis for a credible certification of compliance with the particulate emission standard for Units 1 and 2. If the State believes that no additional monitoring is warranted to ensure compliance with the particulate standard it must provide a technical demonstration in the statement of basis identifying the rationale for basing the compliance certification only on data from a short-term annual test. Otherwise, the permit must be revised to identify additional monitoring that will be conducted in order to ensure compliance with the particulate matter standard. We suggest the following approaches to periodic monitoring:

a) Correlate COM data to PM standard - this approach would not require additional monitoring equipment to be installed.
b) Correlate injection rate of specific compounds to ash content of the fuel and emission rate. Recordkeeping would consist of ash content and corresponding injection rate.
c) Other monitoring approach demonstrated by the permittee to be a valid method for assuring compliance with the applicable three-hour particulate matter standard.

In addition, the Riviera permit states that magnesium oxide, magnesium hydroxide and related compounds may be injected into each boiler. Information provided to EPA indicates that these injected compounds (additives) are used to control both particulate matter and nitrogen oxide emissions and that the amount of additive is dependent upon the ash content of the fuel. No provision exists within the permit which addresses the approval and use of additives. The units should be required to operate during compliance tests at an injection rate consistent with normal operations. This could be corrected by adding to the particulate compliance language: "the tests shall be conducted under both sootblowing and non-sootblowing conditions, and shall be conducted while injecting approved additives consistent with normal operating practices approved by the Department."

(3) Deviation from Applicable Requirement - Florida rule 62-296.405(1)(f) 1.a, requires all emissions units to install continuous monitoring systems for monitoring opacity. The only exemption appears to be for units that do not use emission control equipment. Since emissions from these units are controlled with multiple cyclones, it appears that Florida regulations would require the use of COMs to determine compliance with the opacity standard. This applicable requirement must be included in the permit, or clarification must be provided in the statement of basis as to why this requirement does not apply.

(4) Deviation from Applicable Requirement - Florida rule 62-296.405(1)(a) requires fossil fuel steam generators to comply with a 20 percent opacity standard, with the exception that sources electing to test for particulate matter emission compliance quarterly shall be allowed visible emissions of 40 percent opacity. The Riviera permit requires compliance with a 40 percent opacity standard; however, it only requires an annual compliance test for particulate matter emissions. We understand that this variance from the SIP's quarterly testing requirement was granted by a State Order. However, this variance was never submitted by the State of Florida as a SIP revision, and therefore, was never approved into the SIP. Therefore, the Manatee permit must ensure compliance with the requirements of the SIP as stated in rule 62-296.405(1)(a).

(5) Deviation from Applicable Requirement - Condition A.9 states that 'The sulfur dioxide emission limitation shall apply at all times including startup, shutdown, and load change, but shall not apply during malfunction provided best operational practices to minimize emissions are adhered to and the duration of excess emissions are minimized and does not exceed two hours in any 24-hour period.' These units do not have sulfur dioxide controls. Please provide a definition

of what constitutes a malfunction as used in this permit condition for the Riviera Plant. The SIP rules (62-296.405(1)(c) and 62-296.405)(1)(c)) do not provide for a relaxation of the SIP limit during a malfunction. This condition should be revised to be consistent with the applicable regulations.

(6) Exemptions from Permitting: Appendix E-1- It is our understanding that the changes to F.A.C. rules 62-213.300, and 62-213. 420-440 addressed in a preliminary draft dated June 2, 1997, were officially adopted by the State on November 13, 1997. Therefore, the State needs to revise the permit, specifically Section II, item 6 and Appendix E-1, to delete the term "exempted from permitting" and replace it with the language contained in rules 62-213.300, and 62-213. 420-440. Additionally, as agreed in previous conversations between Regional staff and the State, the State needs to remove the reference to F.A.C. rule 62-4, since it in not related to activities that may be considered "insignificant" under the title V program.

(7) Periodic Monitoring - Condition A.8 allows particulate matter emissions up to an average of 0.3 lbs. per million BTU heat input during a 3-hour period in any 24-hour period for soot blowing and load change. In addition, Condition A.6 allows visible emissions up to 60 percent opacity during soot blowing and load changes. A load change is defined to occur when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more. There does not, however, appear to be any conditions that require the source to record the time,date, and duration of these events. The permit must require that the facility keep records of these events to ensure compliance with this requirement.

In addition to the above objections, our review has identified the following concerns regarding the Riviera permit:

1. Section II, Facility-Wide Conditions.

   Condition 7 should be identified as "Not Federally Enforceable."

2. Conditions A.15 and A.23 indicate that the permittee shall demonstrate compliance with the sulfur dioxide limit using CEMs. Condition A.23 also appears to offer the source the opportunity to use EPA test methods 6, 6A, 6B, 6C for demonstrating compliance with the applicable SO_2 standard. If the source is required to use CEMs as a method of

demonstrating compliance, it is unclear why Condition A.23 indicates alternative test methods. The Region recommends that the language in A.23, which allows the above test methods for measuring sulfur dioxide emissions, be removed from Condition A.23 in order to avoid confusion.

Condition A.23 also allows the source to obtain an alternate procedure under the provisions of Rule 62-297.620, F.A.C.. Rule 62-297.620 (Exceptions and Approval of Alternate Procedures and Requirements) does not allow the source to obtain an alternative to continuous monitoring requirements. Therefore, it appears that the language in Condition A.23 which suggests that the source has the option of obtaining an alternative procedure to CEMs for demonstrating compliance with the SO_2 limit should be removed to avoid confusion. Please, refer to the Turkey Point permit which contains requirements for CEMs in conditions A.9 and A.13, but does not include the confusing language mentioned above.

Department of
Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

March 10, 1998

Mr. R. Douglas Neeley, Chief
Air and Radiation Technology Branch
Air, Pesticides and Toxics Management Division
United States Environmental Protection Agency
Region 4
61 Forsyth Street, SW
Atlanta, GA 30303-8909

Re: Proposed Changes to FPL Proposed Title V Permits to Satisfy EPA Objections

Dear Mr. Neeley:

This letter is to document changes that the Department proposes to satisfy EPA Region 4 objections to Florida's Proposed Title V permits for the following Florida Power and Light plants: Lauderdale, Manatee, Martin, Port Everglades, Putnam, Riviera and Turkey Point Fossil. These objections were detailed in a letter from EPA Region 4 dated December 11, 1997 in which EPA indicated the primary basis for objection was that the permits do not meet the periodic monitoring requirements of 40 CFR 70.6(a)(3)(i). Also, the objection letter stated that some permits have deviations from applicable requirements, or have issues related to practical enforceability. The objection letter implied a program deficiency in the area of periodic monitoring as it relates to Florida's Title V permits. Our preference is to resolve this issue separately, so we do not have to encounter this situation on each Title V permit we issue. Obviously a case-by-case objection for periodic monitoring is neither efficient nor equitable. We have, however, proposed changes to these FPL permits to resolve EPA's objections on these permits, in advance of addressing the issue on a program-wide basis.

The changes proposed in this letter result primarily from our meeting with you and your staff and representatives of FPL on March 3rd at your office. That meeting enabled us to clarify many of the issues and identify changes that could be made to the permits that would allow Florida to issue Final Title V permits for these plants. Please review the following proposed changes to the referenced permits. If you concur with our changes, we will issue Final permits with these changes.

The following items and changes are presented generally in the order of our discussion of the issues at our March 3rd meeting.

Manatee, Martin, Port Everglades, Riviera and Turkey Point

FPL has been unable to correlate opacity to PM, ash or additive injection data, even given the large amount of data available for these facilities. FPL is also unaware of industry or government studies detailing such a correlation. Therefore, all parties agreed that correlating opacity to PM data would not be pursued. Instead, for the units with COMS, a permit condition will be added that requires the owner or operator to maintain and operate COMS and to make and maintain records of the readings for purposes of periodic monitoring. The following condition will be added:

Add a new condition to each permit in the sections for the fossil fuel steam generators titled Record Keeping and Reporting Requirements:

X.x. COMS for Periodic Monitoring. The owner or operator is required to install continuous opacity monitoring systems (COMS) pursuant to 40 CFR Part 75. The owner or operator shall maintain and operate COMS and shall make and maintain records of opacity measured by the COMS, for purposes of periodic monitoring.
[Rule 62-213.440, F.A.C., and applicant agreement with EPA on March 3, 1998]

Port Everglades and Lauderdale

Pursuant to our discussion, for simple-cycle and combined-cycle combustion turbine units without COMS, the permits will be revised to require that each unit shall have a Method 9 visible emissions test conducted upon exceeding 400 hours of operation on fuel oil, and every 150 hours of operation on fuel oil thereafter, in any given federal fiscal year. The statement of basis for these permits will be revised to include a demonstration supporting such a testing frequency, specifically referring to the low historical operational use of fuel oil and the difficulty of scheduling VE tests for remote-started units. The following specific changes will be made:

Add to the statement of basis for Lauderdale and Port Everglades:

The Department has determined that the appropriate VE testing frequency for the simple-cycle turbines is a VE test upon 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). This frequency is justified by the low historical operational use of fuel oil for these units and the previous VE tests which documented compliance while firing fuel oil. The Lauderdale units have fired fuel oil a total of 34.5 hours in 1992, 17.4 hours in 1993, 8.4 hours in 1994, 2.4 hours in 1995, 282.4 hours in 1996, and 11.1 hours in 1997. The Port Everglades units have fired fuel oil a total of 50.5 hours in 1992, 30.7 hours in 1993, 7.9 hours in 1994, 2.5 hours in 1995, 4.1 hours in 1996, and 5.9 hours in 1997.

Also add to the statement of basis for Lauderdale

The Department has determined that the appropriate VE testing frequency for the combined-cycle turbines is a VE test upon 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). This frequency is justified by the low historical operational use of fuel oil for these units and the previous VE tests which documented compliance while firing fuel oil. These units have fired fuel oil a total of 97.7 hours in 1993 (the year that PM testing was conducted on oil), 12.0 hours in 1994, 0.0 hours in 1995, 0.2 hours in 1996, and 0.0 hours in 1997. The combined-cycle turbines were not operational prior to 1993.

The permit for Lauderdale will be revised:

B.14. Visible Emissions Testing Required. 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 No. 23]

The permit for Port Everglades will be revised:

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

The owner or operator shall conduct testing for visible emissions while firing fuel oil for each simple-cycle turbine unit upon that turbine's exceeding 400 hours of operation on fuel oil, and every 150 hours of operation on fuel oil thereafter, in any given federal fiscal year (October 1 through September 30). Such tests shall be performed within 15 days of exceeding such operating hours, to allow for prior notification of the tests.
[Rule 62-213.440, F.A.C., applicant agreement with EPA on March 3, 1998, and AO 06-230618]

The permit for Lauderdale will be revised:

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.

(The table and its footnote have been omitted in this letter for clarity. They will remain in the permit.)

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

Manatee, Martin, Port Everglades, Riviera and Turkey Point

After reviewing historical particulate matter emissions data for these plants, the Department believes that a demonstration is appropriate, based on that data, to support each permit's annual PM testing frequency. As discussed in our meeting, these facilities are subject to a steady-state PM emission limit of 0.1 lb/mmBtu, which is effectively equivalent to 0.149 lb/mmBtu because of rounding, and 0.3 lb/mmBtu for soot blowing, which is equivalent to 0.349 lb/mmBtu. We proposed evaluating the required PM testing frequency based on the historical average test results, with sources with historical emissions less than half the standard required to test annually, sources with historical emissions less than three quarters of the standard required to test semi-

annually, and the remaining sources required to test quarterly. FPL has presented historical PM test results which show that the steady-state and soot blowing average results are less than half the applicable effective standards. The statement of basis for these permits will be revised to include a demonstration supporting an annual testing frequency, specifically referring to the low historical emission rate in relation to the effective standards for steady-state operation and soot-blowing operation. The following specific changes will be made:

Add to the statement of basis for each permit:

> The Department has determined that the appropriate particulate testing frequency for the fossil fuel steam generators is annually whenever fuel oil is used for more than 400 hours in the preceding year. This frequency is justified by the low emission rate documented in previous emissions tests while firing fuel oil. These units are subject to a steady-state PM emission limit of 0.1 lb/mmBtu, which is effectively equivalent to 0.149 lb/mmBtu because of rounding, and 0.3 lb/mmBtu for soot blowing, which is equivalent to 0.349 lb/mmBtu. FPL has presented historical PM test results which show that the steady-state and soot blowing average results are less than half the applicable effective standards. The Department has determined that sources with emissions less than half of the effective standard shall test annually. A summary of results of particulate emission testing in lb/mmBtu for the units at Martin* are 0.057 (steady-state) and 0.059 (soot-blowing).

* The revised statement of basis for the following facilities will reflect the appropriate emission test results: results for Manatee are 0.066 (steady-state) and 0.081 (soot-blowing); Port Everglades are 0.059 (steady-state) and 0.068 (soot-blowing); Riviera are 0.063 (steady-state) and 0.079 (soot-blowing); Turkey Point are 0.048 (steady-state) and 0.061 (soot-blowing).

Lauderdale

For the combined-cycle combustion turbine units, the Department believes that annual PM testing is appropriate, and can be justified through a demonstration in the statement of basis. The statement of basis for these permits will be revised to include a demonstration supporting such a testing frequency, specifically referring to the low historical operational use of fuel oil for these units and the low emission rate documented in previous emissions tests while firing fuel oil. The following specific changes will be made:

Add to the statement of basis:

> The Department has determined that the appropriate particulate testing frequency for the combined-cycle turbines is annually whenever fuel oil is used for more than 400 hours in the preceding 12-month period. This frequency is justified by the low historical operational use of fuel oil for these units and the low emission rate documented in previous emissions tests while firing fuel oil. These units have fired fuel oil a total of 97.7 hours in 1993 (the year that PM testing was conducted on oil), 12.0 hours in 1994, 0.0 hours in 1995, 0.2 hours in 1996, and 0.0 hours in 1997. The units were not operational prior to 1993. Results of particulate emission testing conducted on the combined cycle combustion turbines in 1993 while firing fuel oil show that all turbines had emissions well below the PM emission limit. Average particulate emissions for Unit 4A was 41.4 lb/hr, Unit 4B was 52.0 lb/hr, Unit 5A was 45.9 lb/hr, and Unit 5B was 48.0 lb/hr, versus an emission limit for each unit of 58 lb/hr.

Manatee, Port Everglades and Riviera (and Martin and Turkey Point)

A permit condition will be added for each of these plants requiring the owner or operator to conduct emission tests while injecting additives consistent with normal operating practices. The statement of basis will

also be revised to discuss the purpose of the additives. Note that the Turkey Point permit has language in condition A.3 regarding injection of additives. The following specific changes will be made:

Add to the statement of basis for each permit:

> FPL may inject additives such as magnesium oxide, magnesium hydroxide and related compounds into each boiler for the purposes of reducing build-up of particulate matter on the interior boiler surfaces, to facilitate proper heat transfer and other boiler operation, and to reduce the particulate matter required to be removed from boiler surfaces during soot blowing and other boiler cleaning operations. The rate of additive injection is not large, generally on the order of 1 gallon of additive per approximately 2,500 (± 500) gallons of fuel oil (this is approximately 0.04% by volume). The permit requires that emission tests be conducted while injecting additives consistent with normal operating practices.

Add a new condition to each permit in the sections for the fossil fuel steam generators titled Test Methods and Procedures for the Manatee, Port Everglades and Riviera and Martin plants:

> X.x. Testing While Injecting Additives. The owner or operator shall conduct emission tests while injecting additives consistent with normal operating practices.
> [Rule 62-213.440, F.A.C., applicant agreement with EPA on March 3, 1998]

Manatee, Port Everglades, Riviera and Turkey Point

No revisions of the permits are necessary to allow the 40 percent opacity limit. All parties in the meeting agreed that the previous Secretary orders are consistent with Florida's SIP and do not represent a variance from SIP requirements. The use of the word "variance" in these orders was not intended in the legal context but was instead intended to represent a difference or change. This issue is considered resolved, so no changes to the permits will be made.

The note in conditions A.14 and B.14 of the Port Everglades permit that refers to an informal agreement regarding visible emissions is not intended to be an enforceable part of the permit, so we agree it is not an enforceable condition. It is instead intended to identify the agreement for the information of the compliance inspector. No change to the permit is needed.

Manatee

The permit will be revised to limit the sulfur content of the fuel oils received at the plant to 1.0 percent by weight, and require fuel analysis by either the vendor or FPL to document compliance with the sulfur limit.

Add to the permit:

> A.9. Sulfur Dioxide. The sulfur content of fuel oils burned shall not exceed 1.0 percent by weight, as received at the plant. See specific conditions A.9, A.15, A.23 and A.24 of this permit.
> [Rules 62-213.440 and 62-296.405(1)(c)1.g., F.A.C., and applicant agreement with EPA on March 3, 1998]

> A.24. The following fuel sampling and analysis protocol shall be used as an alternate sampling procedure authorized by permit to demonstrate compliance with the sulfur dioxide standard:

> Compliance with the liquid fuel sulfur limit shall be verified by a fuel analysis provided by the vendor or performed by FPL upon each fuel delivery at the Port Manatee Fuel Oil Terminal with the following exception: in cases where No. 6 fuel oil is received with a sulfur content exceeding 1.0 percent by weight,

and blending at the terminal is required to obtain a fuel mix equal to the applicable percent sulfur limit, an analysis of a fuel sample representative of fuel from the fuel storage tanks shall be performed by FPL prior to transferring oil to the Manatee plant. Reports of percent sulfur content of these analyses shall be maintained at the power plant facility.

The owner or operator shall maintain records of the as-fired fuel oil heating value, density or specific gravity, and the percent sulfur content. Fuel sulfur content, percent by weight, for liquid fuels shall be determined by either ASTM D2622-94, ASTM D4294-90 (95), ASTM D1552-95, ASTM D1266-91, or both ASTM D4057-88 and ASTM D129-95 (or latest editions) to analyze a representative sample of the fuel oil.
[Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C., and applicant agreement with EPA on March 3, 1998]

Lauderdale, Manatee, Martin, Putnam and Turkey Point

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 note will be added to the permitted capacity condition for each permit clarifying this, and an explanation that regular record keeping is not required for heat input will be added to the statement of basis. The following specific changes will be made:

Add to the statement of basis for each permit:

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 note below the permitted capacity condition clarifies this. Regular record keeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5),F.A.C., included in the permit, is requires measurement of process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.

Add to each permit below the condition titled Permitted Capacity:

{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.}

Manatee, Martin, Port Everglades, Riviera and Turkey Point

No revisions of the permits are necessary to address the comment related to records of soot blowing and load changes. All parties in the meeting agreed that the current permit requirements related to reporting of excess emissions are sufficient to satisfy this comment. FPL will continue to document and report excess emission events. This issue is considered resolved, so no changes to the permits will be made.

Lauderdale and Martin

The permits will be revised to specify that the 12-month average sulfur content be calculated as a weighted average based upon the sulfur content of the oil and the amount burned on a daily basis. The following specific changes will be made:

The permit for Lauderdale will be changed:

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 No. 5 and No. 11]

The permit for Martin will be changed:

B.28. The average sulfur content of the light distillate oil shall not exceed 0.3%, by weight, during any consecutive 12-month period. The maximum sulfur content of the light distillate fuel oil shall not exceed 0.5%, by weight. 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 60.334 by testing for sulfur content, for nitrogen content, and for heating value of oil storage tanks once per day when firing oil using ASTM D 2880-96.
[Rule 62-213.440, F.A.C., applicant agreement with EPA on March 3, 1998, and PSD-FL-146, Specific Condition No. 11]

C.8. Sulfur Dioxide. Sulfur dioxide emissions limitations for the auxiliary steam boiler are established by firing natural gas or limiting the light distillate fuel oil's average sulfur content to 0.3%, 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.
[Rule 62-213.440, F.A.C., applicant agreement with EPA on March 3, 1998, and PSD-FL-146, revised 7/19/93]

D.3. Sulfur Dioxide. Sulfur dioxide emissions limitations for the diesel generator are established by limiting the light distillate fuel oil's average sulfur content to 0.3%, 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.
[Rule 62-213.440, F.A.C., applicant agreement with EPA on March 3, 1998, and PSD-FL-146, revised 7/19/93]

Port Everglades and Riviera (and Turkey Point)

No revisions of the permits are necessary to address the comment related to operation in the event the CEMS become temporarily inoperable. All parties in the meeting agreed that the current permit requirements related to firing fuel oil and gas in the event of temporary CEMS inoperability are sufficient to satisfy this comment. The Turkey Point permit was mentioned in the comment. As discussed briefly, the Department will

revise the Turkey Point permit to be consistent with the Port Everglades and Riviera permits. This issue is considered resolved, so no changes to the Port Everglades and Riviera permits will be made.

The permit for Turkey Point, however, will be revised to be similar to the Port Everglades and Riviera permits:

A.13. Sulfur Dioxide. The permittee shall demonstrate compliance with the sulfur dioxide limit of specific condition A.9 of this permit by the following:

a. Through the use of CEMS installed, operated, and maintained in accordance with the quality assurance requirements of 40 CFR 75, adopted and incorporated by reference in Rule 62-204.800 F.A.C. A relative accuracy test audit of the SO_2 CEMS shall be conducted at least annually. Compliance shall be demonstrated on a 3-hour rolling average.

b. In the event the CEMS becomes temporarily inoperable or interrupted, the fuel oil sulfur content and the maximum fuel oil to natural gas firing ratio is limited to that which was last used to demonstrate compliance prior to the loss of the CEMS. Alternatively, the boilers may fire 100 percent fuel oil with a maximum sulfur content of 1.0 percent by weight, or less, or 100 percent natural gas. See specific condition A.19.

[Rule 62-204.800, 62-213.440, 62-296.405(1)(c)3., F.A.C., AO13-238932, AO13-238939]

Port Everglades, Riviera and Turkey Point

The possible malfunctions related to sulfur dioxide emissions at these plants that were discussed at the meeting were unexpected loss of natural gas supply at the plant or failure of the fuel feed system. Another malfunction that could occur is burner failure. The Department agreed to remove the reference to malfunction in the sulfur dioxide emissions permit conditions. The excess emission provisions from Rule 62-210.700 are applicable, and are already included in the permit. A comment will be added to the statement of basis clarifying this issue. The following specific changes will be made:

Add to the statement of basis for each permit:

This facility is allowed to co-fire natural gas with fuel oil in any ratio that will cause emissions to not exceed the sulfur dioxide limitation of this permit. The permit specifies that compliance with the sulfur dioxide standard shall be based on the total heat input from all liquid and gaseous fuels burned. The permit also requires that the sulfur dioxide emission limitation shall apply at all times including startup, shutdown, and load change. However, excess emissions of sulfur dioxide are allowed during malfunctions in accordance with the excess emissions conditions of this permit, which are based on Rule 62-210.700, F.A.C. Malfunctions that could occur and affect sulfur dioxide emissions include unexpected loss of natural gas supply at the plant, failure of the fuel feed system or burner failure.

The permit for Port Everglades (conditions A.8 and B.8), Riviera (condition A.9) and Turkey Point (condition A.9) will be changed:

X.x. Sulfur Dioxide. Sulfur dioxide emissions shall not exceed 2.75* pounds per million Btu heat input, as measured by applicable compliance methods. Compliance shall be based on the total heat input from all liquid and gaseous fuels burned. The sulfur dioxide emission limitation shall apply at all times including startup, shutdown, and load change.

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

* The appropriate limit for the Turkey Point permit is 1.1 lb/mmBtu because of local ordinance, and the permit will have that limit.

Lauderdale, Manatee, Martin, Port Everglades, Putnam, Riviera and Turkey Point

Appendix E-1 will be replaced with Appendix I-1 that includes Florida's standard language that refers to Insignificant Emissions Units and/or Activities. The rule change requiring this became effective after these permits were posted. All permitting offices are making this administrative change subsequent to the rule change. We understand that EPA has already reviewed this appendix for similar sources, so the actual text will not be reproduced here.

All Permits

EPA's objection letter detailed several minor issues that required correction, such as marking conditions as not federally enforceable, making minor changes to permit condition language, or correcting typographical errors. Although not discussed at our March 3rd meeting, we will also address each of those issues in the Final permits.

As you know, the 90 day period ends March 11th. All parties involved have been expeditiously seeking resolution of these issues. We feel that EPA's concerns have been adequately addressed and we look forward to issuing final permits. Please advise as soon as possible if you concur with the specific changes detailed above. Please call me at 850/921-9503 if you have any questions. You may also contact Mr. Scott M. Sheplak, P.E., at 850/921-9532, or Mr. Joseph Kahn, P.E., at 850/921-9519, if you need any additional information.

Sincerely,

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

CF/jk

cc: Howard L. Rhodes
Scott Sheplak
Pat Comer
Rich Piper, FPL
Peter Cunningham, HGSS

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

February 6, 1998

Jeffery F. Koerner, P.E.
Florida Department of Health
Palm Beach County Health Department
P.O. Box 29
West Palm Beach, FL 33402-0029

Re: Use of New Additive at FPL Riviera Beach Power Plant
Opacity Reduction Program
Facility ID No. 0990042

Dear Jeff:

If Florida Power and Light plans to use this alklamine regularly after testing, they will need to revise their pending Title V permit to reflect its use. To revise the permit, we will need to know if the additive is effective at reducing opacity, inhibiting corrosion or any other effects. We will also need information regarding the mass feed rate and the relationship of this product to other additives currently in use, the operating conditions of the tests, and the potential emissions from the product. Any emissions data should be submitted to the Department. As you know, the Proposed Title V permit has been vetoed by EPA; one of the items of EPA's concern was the use of fuel additives. If we resolve EPA's objections, we will be issuing this permit. In any event, changes should be made before the Final permit. Please pass our comments on to the facility, or let me know if you would like me to contact them directly. Please advise us regarding the results of the testing.

Please call me at 850/921-9519 if you have any questions.

Sincerely,

Joseph Kahn, P.E.
Title V Section

FLORIDA DEPARTMENT OF HEALTH

Lawton Chiles, Governor

James T. Howell, M.D., M.P.H., Secretary

January 30, 1998

Joe Kahn, PE, Title V Permitting Section
Bureau of Air Regulation
Florida Department of Environmental Regulation
2600 Blair Stone Road
Ttallahassee, FL 32399-2400

Re: Use of New Additive at FPL Riviera Beach Power Plant

File: FPL_GNK.LTR

Dear Joe:

Florida Power and Light plans to begin testing a new fuel additive at the Riviera Beach Power Plant. I have attached the information provided to our agency for your review. Apparently, FPL believes the additive may reduce the sulfur trioxide opacity plume and inhibit corrosion. However, they also mention it as a possible permanent technology to neutralize acid gases. I thought you may want to provide some input on the preliminary tests because of the potential use as a "control mechanism". If I remember correctly, EPA had several questions on the current fuel additive. If you have any questions, please contact me at the numbers below.

Sincerely,

For the Division Director
Environmental Health and Engineering

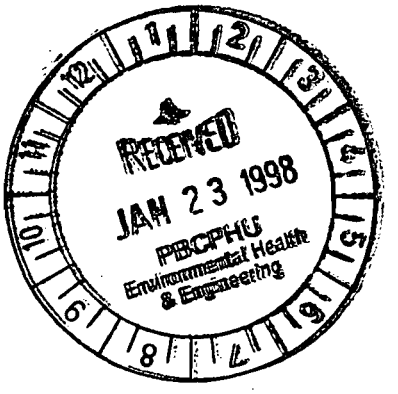
Jeffery F. Koerner, PE
Air Pollution Control Section
Phone: (561) 355-4549 FAX: (561) 355-2442

Att.: FPL Fuel Additive Informartion

Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

January 21, 1998



James E. Stormer
Environmental Administrator
Air Pollution Control Section
Palm Beach Public Health Unit
P.O. Box 29
West Palm Beach, Fl. 33402

Re: FPL Riviera Plant Unit 4
Use of Additives

Dear Mr. Stormer:

Pursuant to a conversation with Ajaya Satyal of your staff on January 20, 1998, this correspondence is to provide the Health Unit with further details regarding the opacity reduction program which the Riviera plant plans to undertake at Unit 4.

Test Program
The plant proposes to utilize a aqueous solution of an alklamine in a water base carrier at the gas outlet side of air heaters. The test program is designed to determine the whether the solution will reduce the sulfur trioxide plume. Additionally the solution should help reduce corrision. The solution will be air atomized into the flue gas at a location downstream of air heater and upstream of the multicyclone dust collector. The injection rate will be approximately 1:5000, and unit load will vary from low load to approximately 75% load.

The test program will be carried out in the second week of February, 1998 for 30 day duration depending upon unit availability. Anticipated changes in stack emissions would be a reduction in the sulfur trioxide plume. Based on the program results, FPL may utilize this technology as a permanent mechanism to neutralize acid gases.

This product has been used at coal fired utilities with precipitators as a corrision inhibitor.

Attached is the MSDS for the solution.

As always, if you have any questions, please do not hesitate to call me at (561) 691-7061.

Sincerely,

Vito Giarrusso

Vito Giarrusso
Environmental Specialist
Florida Power & Light Company
an FPL Group company

cc. Mr. Thomas Tittle - Florida DEP Southeast District Office
cc: Mr. Ajaya Satyal - PBCPHU

MATERIAL SAFETY DATA SHEET

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Emergency Telephone Number

Medical (800) 462-5378 (24 hours) **(800) I-M-ALERT**

SECTION 1 PRODUCT IDENTIFICATION

TRADE NAME: NALCO FUEL TECH 1200
DESCRIPTION: An aqueous solution of an alkylamine

NFPA 704M/HMIS RATING: 2/2 HEALTH 1/1 FLAMMABILITY 0/0 REACTIVITY 0 OTHER
0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

SECTION 2 COMPOSITION/INGREDIENT INFORMATION

Our hazard evaluation has identified one or more hazardous ingredient(s) under OSHA's Hazard Communication Rule, 29 CFR 1910.1200. Their identity is being claimed a trade secret. Consult Section 15 for the nature of the hazard(s).

INGREDIENT(S)	CAS #	APPROX.%
Alkylamine	Proprietary	20-40

SECTION 3 HAZARD IDENTIFICATION

EMERGENCY OVERVIEW:
WARNING: Causes irritation to skin and eyes. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield when handling. Avoid prolonged or repeated breathing of vapor. Use with adequate ventilation. Do not take internally. Keep container closed when not in use.

Empty containers may contain residual product. Do not reuse container unless properly reconditioned.

PRIMARY ROUTE(S) OF EXPOSURE: Eye, Skin

EYE CONTACT: Can cause moderate irritation.
SKIN CONTACT: Can cause moderate irritation.
INGESTION: Can be harmful.

SYMPTOMS OF EXPOSURE: A review of available data does not identify any symptoms from exposure not previously mentioned.

AGGRAVATION OF EXISTING CONDITIONS: A review of available data does not identify any worsening of existing conditions.

SECTION 4 FIRST AID INFORMATION

EYES: Immediately flush for at least 15 minutes while holding eyelids open. Call a physician at once.
SKIN: Wash thoroughly with soap and rinse with water. Call a

SECTION 4 FIRST AID INFORMATION (CONTINUED)

physician.
INGESTION: Do not induce vomiting. Give water. Call a physician.
INHALATION: Remove to fresh air. Treat symptoms. Call a physician.

NOTE TO PHYSICIAN: Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.

CAUTION: If unconscious, having trouble breathing or in convulsions, do not induce vomiting or give water.

SECTION 5 FIRE FIGHTING

FLASH POINT: None (PMCC) ASTM D-93

EXTINGUISHING MEDIA: Use water to cool containers exposed to fire. For large fires, use water spray or fog, thoroughly drenching the burning material.

UNUSUAL FIRE AND EXPLOSION HAZARD: May evolve NOx under fire conditions. Exposure of this product to a heat source at elevated temperatures may result in rapid decomposition and the release of gases, which may be combustible.

SECTION 6 ACCIDENTAL RELEASE MEASURES

IN CASE OF TRANSPORTATION ACCIDENTS, CALL THE FOLLOWING 24-HOUR TELEPHONE NUMBER (800) I-M-ALERT or (800) 462-5378.

SPILL CONTROL AND RECOVERY:

Small liquid spills: Contain with absorbent material, such as clay, soil or any commercially available absorbent. Shovel reclaimed liquid and absorbent into recovery or salvage drums for disposal. Refer to CERCLA in Section 15.

Large liquid spills: Dike to prevent further movement and reclaim into recovery or salvage drums or tank truck for disposal. Refer to CERCLA in Section 15.

For large indoor spills, evacuate employees and ventilate area. Those responsible for control and recovery should wear the protective equipment specified in Section 8 .

SECTION 7 HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes, and clothing.

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SECTION 7 HANDLING AND STORAGE (CONTINUED)

Storage : Keep container closed when not in use.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION: Respiratory protection is not normally needed.

For large spills, entry into large tanks, vessels or enclosed small spaces with inadequate ventilation, a positive pressure, self-contained breathing apparatus is recommended.

VENTILATION: General ventilation is recommended.

PROTECTIVE EQUIPMENT: Wear impermeable gloves, boots, apron and a face shield with chemical splash goggles. Examples of impermeable gloves available on the market are neoprene, nitrile, PVC, natural rubber, viton and butyl (compatibility studies have not been performed). A full slicker suit is recommended if gross exposure is possible.

The availability of an eye wash fountain and safety shower is recommended.

If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse.

HUMAN EXPOSURE CHARACTERIZATION: Based on Nalco's recommended product application and our recommended personal protective equipment, the potential human exposure is: *LOW.*

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR: Clear colorless	FORM: Liquid	ODOR: Sweet
DENSITY:	8.5 lbs/gal.	
SOLUBILITY IN WATER:	Completely	
SPECIFIC GRAVITY:	1.02 @ 74 Degrees F	ASTM D-1298
pH (NEAT) =	2.5 - 5.5	ASTM E-70
VISCOSITY:	3 cps @ 74 Degrees F	ASTM D-2983
FREEZE POINT:	20 Degrees F	ASTM D-1177
BOILING POINT:	207 Degrees F @ 760 mm Hg	ASTM D-86
FLASH POINT:	None (PMCC)	ASTM D-93

NOTE: These physical properties are typical values for this product.

SECTION 10 STABILITY AND REACTIVITY

INCOMPATIBILITY: None known

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SECTION 10 STABILITY AND REACTIVITY (CONTINUED)

THERMAL DECOMPOSITION PRODUCTS: In the event of combustion CO, CO2, NOx may be formed. Do not breathe smoke or fumes. Wear suitable protective equipment.

SECTION 11 TOXICOLOGICAL INFORMATION

TOXICITY STUDIES: No toxicity studies have been conducted on this product.

HUMAN HAZARD CHARACTERIZATION: Based on our hazard characterization, the potential human hazard is: MODERATE.

SECTION 12 ECOLOGICAL INFORMATION

If released into the environment, see CERCLA in Section 15.

ENVIRONMENTAL HAZARD CHARACTERIZATION: Based on our Hazard Characterization, the potential environmental hazard is: MODERATE. Based on Nalco's recommended product application and the product's characteristics, the potential environmental exposure is: LOW.

SECTION 13 DISPOSAL CONSIDERATIONS

DISPOSAL: If this product becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

As a non-hazardous liquid waste, it should be solidified with stabilizing agents (such as sand, fly ash, or cement) so that no free liquid remains before disposal to an industrial waste landfill. A non-hazardous liquid waste can also be deep-well injected in accordance with local, state and federal regulations.

SECTION 14 TRANSPORTATION INFORMATION

PROPER SHIPPING NAME/HAZARD CLASS MAY VARY BY PACKAGING, PROPERTIES, AND MODE OF TRANSPORTATION. TYPICAL PROPER SHIPPING NAMES FOR THIS PRODUCT ARE:

ALL TRANSPORTATION MODES : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

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SECTION 15 REGULATORY INFORMATION

The following regulations apply to this product.

FEDERAL REGULATIONS:

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:
Based on our hazard evaluation, the following ingredient in this product is hazardous and the reason is shown below.

Alkylamine - Irritant

CERCLA/SUPERFUND, 40 CFR 117, 302:
Notification of spills of this product is not required.

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (TITLE III) - SECTIONS 302, 311, 312 AND 313:

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):
This product does not contain ingredients listed in Appendix A and B as an Extremely Hazardous Substance.

SECTIONS 311 and 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370):
Our hazard evaluation has found this product to be hazardous. The product should be reported under the following EPA hazard categories:

XX Immediate (acute) health hazard
-- Delayed (chronic) health hazard
-- Fire hazard
-- Sudden release of pressure hazard
-- Reactive hazard

Under SARA 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are: 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372):
This product does not contain ingredients on the List of Toxic Chemicals.

TOXIC SUBSTANCES CONTROL ACT (TSCA):
The chemical ingredients in this product are on the 8(b) Inventory List (40 CFR 710).

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), 40 CFR 261 SUBPART C & D:
Consult Section 13 for RCRA classification.

SECTION 15 REGULATORY INFORMATION (CONTINUED)

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15/ formerly Sec. 307, 40 CFR 116/formerly Sec. 311:
None of the ingredients are specifically listed.

CLEAN AIR ACT, Sec. 111 (40 CFR 60), Sec. 112 (40 CFR 61, 1990 Amendments), Sec. 611 (40 CFR 82, CLASS I and II Ozone depleting substances):
This product does not contain ingredients covered by the Clean Air Act.

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65:
This product does not contain any chemicals which require warning under California Proposition 65.

MICHIGAN CRITICAL MATERIALS:
This product does not contain ingredients listed on the Michigan Critical Materials Register.

STATE RIGHT TO KNOW LAWS:
This product does not contain ingredients listed by State Right To Know Laws.

SECTION 16 OTHER INFORMATION

None

SECTION 17 RISK CHARACTERIZATION

Due to our commitment to Product Stewardship, we have evaluated the human and environmental hazards and exposures of this product. Based on our recommended use of this product, we have characterized the product's general risk. This information should provide assistance for your own risk management practices. We have evaluated our product's risk as follows:

* The human risk is: LOW.
* The environmental risk is: LOW.

Any use inconsistent with Nalco's recommendations may affect our risk characterization. Our sales representative will assist you to determine if your product application is consistent with our recommendations. Together we can implement an appropriate risk management process.

This product material safety data sheet provides health and safety

SECTION 17 RISK CHARACTERIZATION (CONTINUED)

information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to insure safe workplace operations. Please consult your local sales representative for any further information.

SECTION 18 REFERENCES

Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists, OH.

Hazardous Substances Data Bank, National Library of Medicine, Bethesda, Maryland (CD-ROM version), Micromedex, Inc., Englewood, CO.

IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man, Geneva: World Health Organization, International Agency for Research on Cancer.

Integrated Risk Information System, U.S. Environmental Protection Agency, Washington, D.C. (CD-ROM version), Micromedex, Inc., Englewood, CO.

Annual Report on Carcinogens, National Toxicology Program, U.S. Department of Health and Human Services, Public Health Service.

Title 29 Code of Federal Regulations, Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA).

Registry of Toxic Effects of Chemical Substances, National Institute for Occupational Safety and Health, Cincinnati, Ohio (CD-ROM version), Micromedex, Inc., Engelwood, CO.

Shepard's Catalog of Teratogenic Agents (CD-ROM version), Micromedex, Inc., Engelwood, CO.

Suspect Chemicals Sourcebook (a guide to industrial chemicals covered under major regulatory and advisory programs), Roytech Publications (a Division of Ariel Corporation), Bethesda, MD.

The Teratogen Information System, University of Washington, Seattle, Washington (CD-ROM version), Micromedex, Inc., Englewood, CO.

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SECTION 18 REFERENCES (CONTINUED)

PREPARED BY: William S. Utley, PhD., DABT, Manager, Product Safety
DATE CHANGED: 05/05/95 DATE PRINTED: 03/26/97

NALCO FUEL TECH • P.O. Box 3031 • Naperville, Illinois 60566-7031 Telephone (630) 983-3242

Date: 11/12/97 11:09:53 AM
From: Elizabeth Walker TAL
Subject: New Posting
To: See Below

There is a new posting available on the Florida Website

Florida Power and Light
Riviera
0990042001AV

Proposed

The notification letter is encoded and attached. If you have any questions, please let me know.

Thanks,
Elizabeth

18 AE

RECEIVED
SEP 19 2002
BUREAU OF AIR REGULATION

Department of Environmental Protection

Division of Air Resource Management

RESPONSIBLE OFFICIAL NOTIFICATION FORM

Note: A responsible official is not necessarily a designated representative under the Acid Rain Program. To become a designated representative, submit a certificate of representation to the U.S. Environmental Protection Agency (EPA) in accordance with 40 CFR Part 72.24.

Identification of Facility

1. Facility Owner/Company Name: FLORIDA POWER & LIGHT CO.
2. Site Name: Riviera Plant
3. County: Palm Beach
4. Title V Air Operation Permit/Project No. *(leave blank for initial Title V applications)*: 0990042-001-AV

Notification Type *(Check one or more)*

- ☐ **INITIAL**: Notification of responsible officials for an initial Title V application.
- ☐ **RENEWAL**: Notification of responsible officials for a renewal Title V application.
- ☒ **CHANGE**: Notification of change in responsible official(s).
  Effective date of change in responsible official(s) Sept 1, 2002

Primary Responsible Official

1. Name and Position Title of Responsible Official: Jeff Smith - Plant Production Manager
2. Responsible Official Mailing Address:
   Organization/Firm: FPL Riviera Plant
   Street Address: 200-300 Broadway
   City: Riviera Beach State: FL Zip Code: 33404
3. Responsible Official Telephone Numbers:
   Telephone: (561) 845-3154 Fax: (561) 845-3155
4. Responsible Official Qualification *(Check one or more of the following options, as applicable)*:

☒ For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

[ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

[ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

[ ] The designated representative at an Acid Rain source.

5. Responsible Official Statement:

I, the undersigned, am a responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this notification. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, I certify that I have authority over the decisions of all other responsible officials, if any, for purposes of Title V permitting.

Jeff Smith — 8-22-02

Signature Date

Additional Responsible Official

1. Name and Position Title of Responsible Official:
Rick Blomgren - Plant General Manager

2. Responsible Official Mailing Address:
Organization/Firm: FPL Riviera Plant
Street Address: 200-300 Broadway
City: Riviera Beach State: FL Zip Code: 33404

3. Responsible Official Telephone Numbers:
Telephone: (561) 845-3101 Fax: (561) 845-3155

4. Responsible Official Qualification *(Check one or more of the following options, as applicable)*:

[X] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

[ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

[ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

[ ] The designated representative at an Acid Rain source.

Additional Responsible Official

1. Name and Position Title of Responsible Official:

2. Responsible Official Mailing Address:
Organization/Firm:
Street Address:
City: State: Zip Code:

3. Responsible Official Telephone Numbers:
Telephone: ( ) - Fax: ( ) -

4. Responsible Official Qualification *(Check one or more of the following options, as applicable)*:

[ ] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

[ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

[ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

[ ] The designated representative at an Acid Rain source.

18AF

Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

March 31, 1997

Ms. Virginia B. Wetherell, Secretary
State of Florida
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Change of Responsible Official Designation
Title V Program

Dear Ms. Wetherell:

This correspondence is to certify that Ms. Jay Asaibene has replaced Mr. John Lindsay as Plant General Manager of the FPL Riviera Plant. As Plant General Manager, Ms. Asaibene is authorized to act as the "Responsible Official" for that facility, pursuant to State Rule 62-213.200, F.A.C.. Ms. Asaibene is hereby authorized to act on behalf of Florida Power & Light Company on all Title V permit related activities for the Riviera plant.

Sincerely,

Adalberto Alfonso
Vice President
Power Generation Business Unit
Florida Power & Light Company

cc: Scott Sheplak — FDEP DARM
Tom Tittle — FDEP Southeast District

RECEIVED
APR 07 1997
BUREAU OF
AIR REGULATION

Florida Power & Light Company, P.O. Box 088801, North Palm Beach, FL 33408-8801

VIA AIRBORNE EXPRESS

June 10, 1996

Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
State of Florida
Department of Environmental Protection
2600 Blair Stone Road
Tallanassee, FL 32399-2400

Re: Submittal of FPL Riviera Plant Title V Application

Dear Mr. Fancy:

Enclosed, pursuant to DEP Rules 62-210.300(2), F.A.C., and 62-213.420(1)(a)1.a., F.A.C., please find four (4) hard copies of the subject Title V permit application. Due to the recent FDEP recall of the ELSA program, the diskettes containing the electronic application are not included at this time. FPL has worked diligently to prepare an electronic submittal and will submit diskettes containing the electronic application at a later date (when the ELSA program deficiencies have been resolved).

If you have any questions regarding this application, please do not hesitate to contact me at (561) 625-7661.

Very truly yours,

Richard Piper

Richard Piper
Environmental Specialist
Florida Power & Light Company

cc: DEP Southeast District Office (w/o att)

Barbara

18 AD

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

April 24, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Jay Asaibene, Plant General Manager
Florida Power and Light Company
11770 U.S. Highway One
North Palm Beach, FL 33408

Re: Request for Additional Information Regarding Initial Title V Permit Application
File No. 0990042-001-AV
Riviera Plant, Palm Beach County

Dear Ms. Asaibene:

The initial Title V permit application for the Riviera Plant was received in a timely manner (June 12, 1996) and has been deemed complete by default. However, in order to continue processing the application, the Department is requesting the additional information outlined below. Should your response to any of the listed items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form. Please note that the items are grouped by the appropriate application section reference.

A. Application Info.

1. From the Application Comment section it is noted that, "the facility at one time operated a 75 MW steam generating unit (Unit 2, permit #AO50-174444); however this unit is no longer in service". Please provide the date the unit was removed from service. Has the permit been surrendered to the Department? If so, please provide the letter.

B. Facility Information

1. Please provide a copy of document PRVFS_11.txt, Identification of Additional Applicable Requirements. The referenced document appears to be missing from Section E.

2. Attachment to the application, List of Unregulated Trivial and De Minimis Activities, contained a consolidated listing of trivial activities and unregulated emissions units and/or activities that you proposed for exemption. Please resubmit as follows:

   a.) Group the unregulated emissions units and/or activities into logical groupings and indicate any pollutants that have the potential-to-emit quantities equal to or greater than the threshold levels specified in Rules 62-213.420(3)(c)3. & 4., F.A.C., from each of the unregulated emissions units and/or activities.

   b.) Identify emissions units and/or activities that you claim should be exempted and provide adequate information to demonstrate that the units or activities qualify for exemption under the provisions of Rule 62-213.430(6), F.A.C, pursuant to Rule 62-213.420 (3) (m), F.A.C.

   c.) Do not include trivial activities in this application.

3. In the pollutant identification sections of the application, Sections C (facility) and G (units 3 & 4), what does "HAP" refer to?

C. Emission Units 3 and 4: Boilers

1. The maximum permitted sulfur content is 2.5 percent, by weight. In permits AO 50-206721 and AO 50-206722, the sulfur content is to be verified by submittal of monthly fuel analyses reports, and stack testing for SO_2 using EPA Method 6 is required if the sulfur content of the fuel exceeds 2.5 percent, by weight. Please confirm FPL relies upon its own sampling and analysis program. Please confirm no stack tests for SO_2 been conducted. Please advise if you wish to avoid such compliance test requirements by requesting a maximum fuel oil sulfur content limit of 2.5 percent, by weight, and then relying on fuel sampling and analysis to demonstrate compliance.

2. In Section L for Unit 3 it appears that document PRVU1_1.bmp, Process Flow Diagram, is labeled as PRVEU1_1.bmp. In Section L for Unit 3 it appears that document PRVU1_4.bmp, Description of Stack Sampling Facilities, is labeled as PRVU1_1.bmp. In Section L for Unit 4 it appears that document PRVU2_1.bmp, Process Flow Diagram, is labeled as PRVEU2_1.bmp. In Section L for Unit 4 it appears that document PRVU2_4.bmp, Description of Stack Sampling Facilities, is labeled as PRVU2_1.bmp. Please confirm or correct this.

3. Also, "Previously Submitted" should have been entered in the Acid Rain Application - Phase II form information blank instead of "Not Applicable" in Section L.

4. Are Units 3 and 4 front wall fired, natural circulation, 24-burner, compact furnaces and thus subject to Rule 62-296.570 (4) (b) 3., F.A.C. as you have identified as the applicable requirement in the application?

Responsible Official (R.O.) Certification Statement: Rule 62-213.420, F.A.C. requires that all Title V permit applications must be certified by a responsible official. Due to the nature of the information requested above, your response should be certified by the responsible official. Please complete and submit a new R.O. certification statement page from the new long application form, DEP Form No. 62-210.900, effective March 21, 1996 (enclosed).

A written response to these items is required within 90 (ninety) days of receipt of this notice, unless additional time is requested pursuant to Rule 62-213.420(1)(b)6, F.A.C. **Please provide the requested information as soon as possible in order for us to meet the December 31, 1997 issuance deadline for Acid Rain Sources.** If you should have any questions, please contact Susan DeVore or me at (904) 488-1344.

Sincerely,

Scott M. Sheplak, P.E.
Administrator
Title V Section

SMS/sd

enclosure

cc: Mr. Kennard F. Kosky, P.E., Golder Associates
Mr. Richard G. Piper, FPL Environmental Services Department
Mr. Gary Moncrief, FPL Riviera Plant
Mr. Isidore Goldman, Southeast District Office
Mr. James Stormer, Palm Beach County Health Department

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:

2. Owner/Authorized Representative or Responsible Official Mailing Address:

   Organization/Firm:
   Street Address:
   City: State: Zip Code:

3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
   Telephone: ( ) - Fax: ( ) -

4. Owner/Authorized Representative or Responsible Official Statement:

   I, the undersigned, am the owner or authorized representative of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.*

   _____ _____
   Signature Date

* Attach letter of authorization if not currently on file.

P 263 584 889

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
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Sent to Ms. Jay Asaibene / Plant General Manager	
Street & Number Fla. Power & Light Co. 11770 U.S. Highway One	
Post Office, State, & ZIP Code N. Palm Bch., FL 33408	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 04-24-97	

PS Form **3800**, April 1995

Is your **RETURN ADDRESS** completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Ms. Jay Asaibene, Plant General Manager
Florida Power and Light Company
11770 U.S. Highway One
North Palm Beach, Florida 33408

4a. Article Number
P 263 584 889

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

5. Received By: *(Print Name)*

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature:
X

PS Form **381**

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR RESOURCES MANAGEMENT
BUREAU OF AIR REGULATION - TITLE V
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400
MS 5505

RECEIVED
MAY 12 1997
BUREAU OF
AIR REGULATION

Air Pollution Control Section
Division of Environmental Health and Engineering
Palm Beach County Health Department
P.O. Box 29 (901 Evernia Street)
West Palm Beach, FL 33402-0029

FACSIMILE TRANSMITTAL COVER SHEET

DATE: April 21, 1997

FROM: Jeff Koerner, Air Permitting Supervisor
Phone No.: (561) 355-4549, SunCom 273-4549
FAX No: (561) 355-2442

TO: Susan Devore, Title V Section
DEP - Bureau of Air Regulation
FAX No.: 904-922-6979

RE: FPL Riviera Beach
Fuel Analyses Reports

Total Pages: 13 *(including this cover sheet)*

Here are the analyses for 1996. They send them to us quarterly. We should be getting the first quarter of 1997 shortly.

JFK

FLORIDA POWER & LIGHT COMPANY
ENGINEERING & TECHNICAL SERVICES - CENTRAL LABORATORY
STATE OF FLORIDA LABORATORY CERTIFICATION NUMBERS
DRINKING WATER CERTIFICATION NUMBER: 56275
ENVIRONMENTAL CHEMISTRY CERTIFICATION NUMBER: E56078

RIVIERA PLANT
ANALYSES OF FUEL OIL FIRED JANUARY 1996

DATE SAMPLED FROM: 12/15/95 TO	01/22/96
API GRAVITY	9.2
DENSITY, LB/GAL	8.376
DENSITY, LB/BBL	351.792
HEAT OF COMBUSTION, BTU/LB	18166
HEAT OF COMBUSTION, BTU/GAL	152158
HEAT OF COMBUSTION, MBTU/BBL	6391
WATER, % BY VOLUME	0.2
COKING INDEX, % BY WEIGHT	10.9
SULFUR, % BY WEIGHT	2.1
SULFUR DIOXIDE EQUIVALENT, LB/MBTU	2.3
ASH, % BY WEIGHT	0.06
PARTICULATE EQUIVALENT, LB/MBTU	0.03
VANADIUM IN ASH AS V2O5, % BY WEIGHT	25
VANADIUM IN OIL AS V2O5, PPM	147
VANADIUM IN OIL AS V, PPM	82
VISCOSITY, SSF @ 122F	276

COMMENTS: NITROGEN = 0.31%.
COPIES TO: PRV PLANT MGR. PRV/PRV
J. McGRADY - JEN/GB
T.RENK, TECHNICAL MANAGER
PRV/PRV K WASHINGTON - ETS/JB
F-PRV-6 J.PRICE - ETS/JB

ANALYZED BY: C. L. Howell
CERTIFIED BY: K. M. Sewell
JANUARY 28, 1996

FLORIDA POWER & LIGHT COMPANY
ENGINEERING & TECHNICAL SERVICES - CENTRAL LABORATORY
STATE OF FLORIDA LABORATORY CERTIFICATION NUMBERS
DRINKING WATER CERTIFICATION NUMBER: 56275
ENVIRONMENTAL CHEMISTRY CERTIFICATION NUMBER: E56078

RIVIERA PLANT
ANALYSES OF FUEL OIL FIRED FEBRUARY 1996

DATE SAMPLED FROM: 01/22/96 TO	02/20/96
API GRAVITY	10.2
DENSITY, LB/GAL	8.317
DENSITY, LB/BBL	349.314
HEAT OF COMBUSTION, BTU/LB	18307
HEAT OF COMBUSTION, BTU/GAL	152259
HEAT OF COMBUSTION, MBTU/BBL	6395
WATER, % BY VOLUME	0.1
COKING INDEX, % BY WEIGHT	7.6
SULFUR, % BY WEIGHT	1.9
SULFUR DIOXIDE EQUIVALENT, LB/MBTU	2.1
ASH, % BY WEIGHT	0.04
PARTICULATE EQUIVALENT, LB/MBTU	0.02
VANADIUM IN ASH AS V2O5, % BY WEIGHT	52
VANADIUM IN OIL AS V2O5, PPM	209
VANADIUM IN OIL AS V, PPM	117
VISCOSITY, SSF @ 122F	149

COMMENTS: NITROGEN = 0.30%.
COPIES TO: PRV PLANT MGR. PRV/PRV
J. McGRADY - JEN/GB
T.RENK, TECHNICAL MANAGER
PRV/PRV K WASHINGTON - ETS/JB
F-PRV-6 J.PRICE - ETS/JB

ANALYZED BY: C. L. [illegible]
CERTIFIED BY: K. M. Donnell
FEBRUARY 28, 1996

FLORIDA POWER & LIGHT COMPANY
ENGINEERING & TECHNICAL SERVICES - CENTRAL LABORATORY
STATE OF FLORIDA LABORATORY CERTIFICATION NUMBERS
DRINKING WATER CERTIFICATION NUMBER: 56275
ENVIRONMENTAL CHEMISTRY CERTIFICATION NUMBER: E56078

RIVIERA PLANT
ANALYSES OF FUEL OIL FIRED MARCH 1996

DATE SAMPLED FROM: 02/20/96 TO	03/25/96
API GRAVITY	9.4
DENSITY, LB/GAL	8.364
DENSITY, LB/BBL	351.288
HEAT OF COMBUSTION, BTU/LB	18183
HEAT OF COMBUSTION, BTU/GAL	152083
HEAT OF COMBUSTION, MBTU/BBL	6387
WATER, % BY VOLUME	0.4
COKING INDEX, % BY WEIGHT	8.3
SULFUR, % BY WEIGHT	2.2
SULFUR DIOXIDE EQUIVALENT, LB/MBTU	2.4
ASH, % BY WEIGHT	0.07
PARTICULATE EQUIVALENT, LB/MBTU	0.04
VANADIUM IN ASH AS V2O5, % BY WEIGHT	34
VANADIUM IN OIL AS V2O5, PPM	227
VANADIUM IN OIL AS V, PPM	127
VISCOSITY, SSF @ 122F	170

COMMENTS: NITROGEN = 0.20%.
COPIES TO: PRV PLANT MGR. PRV/PRV
ENV. SPEC. - PRV/PRV
T.RENK, PRV/PRV
TECHNICAL MANAGER
K WASHINGTON - ETS/JB
F-PRV-6 J.PRICE - ETS/JB

ANALYZED BY: C. L. Wolfe
CERTIFIED BY: K. Washington
MARCH 28, 1996

FLORIDA POWER & LIGHT COMPANY
ENGINEERING & TECHNICAL SERVICES - CENTRAL LABORATORY
STATE OF FLORIDA LABORATORY CERTIFICATION NUMBERS
DRINKING WATER CERTIFICATION NUMBER: 56275
ENVIRONMENTAL CHEMISTRY CERTIFICATION NUMBER: E56078

RIVIERA PLANT
ANALYSES OF FUEL OIL FIRED APRIL 1996

DATE SAMPLED FROM: 03/25/96 TO	04/22/96
API GRAVITY	9.7
DENSITY, LB/GAL	8.346
DENSITY, LB/BBL	350.532
HEAT OF COMBUSTION, BTU/LB	18227
HEAT OF COMBUSTION, BTU/GAL	152123
HEAT OF COMBUSTION, MBTU/BBL	6389
WATER, % BY VOLUME	0.2
COKING INDEX, % BY WEIGHT	9.6
SULFUR, % BY WEIGHT	2.1
SULFUR DIOXIDE EQUIVALENT, LB/MBTU	2.3
ASH, % BY WEIGHT	0.06
PARTICULATE EQUIVALENT, LB/MBTU	0.03
VANADIUM IN ASH AS V2O5, % BY WEIGHT	29
VANADIUM IN OIL AS V2O5, PPM	181
VANADIUM IN OIL AS V, PPM	101
VISCOSITY, SSF @ 122F	214

COMMENTS: NITROGEN = 0.43%.
COPIES TO: PRV PLANT MGR. PRV/PRV
ENV. SPEC. - PRV/PRV
T.RENK, TECHNICAL MANAGER
PRV/PRV K WASHINGTON - ETS/JB
F-PRV-6 J.PRICE - ETS/JB

ANALYZED BY: [signature]
CERTIFIED BY: [signature]
APRIL 28, 1996

FLORIDA POWER & LIGHT COMPANY
ENGINEERING & TECHNICAL SERVICES - CENTRAL LABORATORY
STATE OF FLORIDA LABORATORY CERTIFICATION NUMBERS
DRINKING WATER CERTIFICATION NUMBER: 56276
ENVIRONMENTAL CHEMISTRY CERTIFICATION NUMBER: E56078
COMPREHENSIVE QUALITY ASSURANCE PLAN NUMBER: 920041
RIVIERA PLANT
ANALYSES OF FUEL OIL FIRED MAY 1996

DATE SAMPLED FROM: 04/23/96 TO	05/23/96
API GRAVITY	8.7
DENSITY, LB/GAL	8.406
DENSITY, LB/BBL	353.052
HEAT OF COMBUSTION, BTU/LB	18121
HEAT OF COMBUSTION, BTU/GAL	152325
HEAT OF COMBUSTION, MBTU/BBL	6398
WATER, % BY VOLUME	0.1
COKING INDEX, % BY WEIGHT	9.5
SULFUR, % BY WEIGHT	2.1
SULFUR DIOXIDE EQUIVALENT, LB/MBTU	2.3
ASH, % BY WEIGHT	0.06
PARTICULATE EQUIVALENT, LB/MBTU	0.03
VANADIUM IN ASH AS V2O5, % BY WEIGHT	25
VANADIUM IN OIL AS V2O5, PPM	147
VANADIUM IN OIL AS V, PPM	82
VISCOSITY, SSF @ 122F	227

COMMENTS: NITROGEN=0.34 %
COPIES TO: PRV PLANT MGR. PRV/PRV
ENV. SPEC. - PRV/PRV
TECHNICAL MANAGER PRV/PRV
K. WASHINGTON - ETS/JB
F-PRV-6 J. PRICE-ETS/JB

ANALYZED BY: S. Addison
CERTIFIED BY: K. M. Washington
MAY 28, 1996

FLORIDA POWER & LIGHT COMPANY
ENGINEERING & TECHNICAL SERVICES - CENTRAL LABORATORY
STATE OF FLORIDA LABORATORY CERTIFICATION NUMBERS
DRINKING WATER CERTIFICATION NUMBER: 86275
ENVIRONMENTAL CHEMISTRY CERTIFICATION NUMBER: E86078
COMPREHENSIVE QUALITY ASSURANCE PLAN NUMBER: 920041

RIVIERA PLANT
ANALYSES OF FUEL OIL FIRED JUNE 1996

DATE SAMPLED FROM: 05/23/96 TO 06/19/96

API GRAVITY	9.0
DENSITY, LB/GAL	8.388
DENSITY, LB/BBL	352.296
HEAT OF COMBUSTION, BTU/LB	18246
HEAT OF COMBUSTION, BTU/GAL	153047
HEAT OF COMBUSTION, MBTU/BBL	6428
WATER, % BY VOLUME	0.2
COKING INDEX, % BY WEIGHT	8.2
SULFUR, % BY WEIGHT	1.9
SULFUR DIOXIDE EQUIVALENT, LB/MBTU	2.1
ASH, % BY WEIGHT	0.06
PARTICULATE EQUIVALENT, LB/MBTU	0.03
VANADIUM IN ASH AS V2O5, % BY WEIGHT	17
VANADIUM IN OIL AS V2O5, PPM	95
VANADIUM IN OIL AS V, PPM	53
VISCOSITY, SSF @ 122F	271

COMMENTS: NITROGEN=0.26 %

COPIES TO: PRV PLANT MGR. PRV/PRV
ENV. SPEC. - PRV/PRV
TECHNICAL MANAGER PRV/PRV
K. WASHINGTON - ETS/JB
F-PRV-6 J. PRICE-ETS/JB

ANALYZED BY: J. Chapman

CERTIFIED BY: [signature]

JUNE 28, 1996

FLORIDA POWER & LIGHT COMPANY
ENGINEERING & TECHNICAL SERVICES - CENTRAL LABORATORY
STATE OF FLORIDA LABORATORY CERTIFICATION NUMBERS
DRINKING WATER CERTIFICATION NUMBER: 86275
ENVIRONMENTAL CHEMISTRY CERTIFICATION NUMBER: E86078
COMPREHENSIVE QUALITY ASSURANCE PLAN NUMBER: 920041
RIVIERA PLANT

ANALYSES OF FUEL OIL FIRED JULY 1996

DATE SAMPLED FROM: 06/19/96 TO	07/19/96
API GRAVITY	8.5
DENSITY, LB/GAL	8.418
DENSITY, LB/BBL	353.556
HEAT OF COMBUSTION, BTU/LB	18144
HEAT OF COMBUSTION, BTU/GAL	152736
HEAT OF COMBUSTION, MBTU/BBL	6415
WATER, % BY VOLUME	<0.1
COKING INDEX, % BY WEIGHT	10.6
SULFUR, % BY WEIGHT	2.0
SULFUR DIOXIDE EQUIVALENT, LB/MBTU	3.2
ASH, % BY WEIGHT	0.07
PARTICULATE EQUIVALENT, LB/MBTU	0.04
VANADIUM IN ASH AS V2O5, % BY WEIGHT	18
VANADIUM IN OIL AS V2O5, PPM	124
VANADIUM IN OIL AS V, PPM	69
VISCOSITY, SSF @ 122F	343

COMMENTS: NITROGEN=0.32 %
COPIES TO: PRV PLANT MGR. PRV/PRV
ENV. SPEC. - PRV/PRV
TECHNICAL MANAGER PRV/PRV
K. WASHINGTON - ETS/JB
F-PRV-6 J. PRICE-ETS/JB

ANALYZED BY: [signature]
CERTIFIED BY: [signature]
JULY 28, 1996

FLORIDA POWER & LIGHT COMPANY
ENGINEERING & TECHNICAL SERVICES - CENTRAL LABORATORY
STATE OF FLORIDA LABORATORY CERTIFICATION NUMBERS
DRINKING WATER CERTIFICATION NUMBER: 56275
ENVIRONMENTAL CHEMISTRY CERTIFICATION NUMBER: E56078
COMPREHENSIVE QUALITY ASSURANCE PLAN NUMBER: 920041

RIVIERA PLANT

ANALYSES OF FUEL OIL FIRED AUGUST 1996

DATE SAMPLED FROM: 07/19/96 TO 08/21/96

API GRAVITY	8.4
DENSITY, LB/GAL	8.424
DENSITY, LB/BBL	353.808
HEAT OF COMBUSTION, BTU/LB	18075
HEAT OF COMBUSTION, BTU/GAL	152264
HEAT OF COMBUSTION, MBTU/BBL	6395
WATER, % BY VOLUME	0.2
COKING INDEX, % BY WEIGHT	9.9
SULFUR, % BY WEIGHT	2.2
SULFUR DIOXIDE EQUIVALENT, LB/MBTU	2.4
ASH, % BY WEIGHT	0.07
PARTICULATE EQUIVALENT, LB/MBTU	0.04
VANADIUM IN ASH AS V2O5, % BY WEIGHT	27
VANADIUM IN OIL AS V2O5, PPM	195
VANADIUM IN OIL AS V, PPM	109
VISCOSITY, SSF @ 122F	323

COMMENTS: NITROGEN=0.26 %, SODIUM=8MG/KG, ZINC=16MG/KG

COPIES TO: PRV PLANT MGR. PRV/PRV
ENV. SPEC. - PRV/PRV
TECHNICAL MANAGER PRV/PRV
K. WASHINGTON - ETS/JB
F-PRV-6 J. PRICE-ETS/JB

ANALYZED BY: J. Chapman

CERTIFIED BY: K. McDonnell

AUGUST 28, 1996

FLORIDA POWER & LIGHT COMPANY
ENGINEERING & TECHNICAL SERVICES - CENTRAL LABORATORY
STATE OF FLORIDA LABORATORY CERTIFICATION NUMBERS
DRINKING WATER CERTIFICATION NUMBER: 56275
ENVIRONMENTAL CHEMISTRY CERTIFICATION NUMBER: E56078
COMPREHENSIVE QUALITY ASSURANCE PLAN NUMBER: 920041
RIVIERA PLANT
ANALYSES OF FUEL OIL FIRED SEPTEMBER 1996

DATE SAMPLED FROM: 08/21/96 TO 09/20/96

API GRAVITY	7.5
DENSITY, LB/GAL	8.478
DENSITY, LB/BBL	356.076
HEAT OF COMBUSTION, BTU/LB	18087
HEAT OF COMBUSTION, BTU/GAL	153342
HEAT OF COMBUSTION, MBTU/BBL	6440
WATER, % BY VOLUME	0.1
COKING INDEX, % BY WEIGHT	9.0
SULFUR, % BY WEIGHT	2.3
SULFUR DIOXIDE EQUIVALENT, LB/MBTU	2.5
ASH, % BY WEIGHT	0.06
PARTICULATE EQUIVALENT, LB/MBTU	0.03
VANADIUM IN ASH AS V2O5, % BY WEIGHT	28
VANADIUM IN OIL AS V2O5, PPM	174
VANADIUM IN OIL AS V, PPM	97
VISCOSITY, SSF @ 122F	249

COMMENTS: NITROGEN=0.29 %, SODIUM=5MG/KG, ZINC=7MG/KG
COPIES TO: PRV PLANT MGR. PRV/PRV
ENV. SPEC. - PRV/PRV
TECHNICAL MANAGER PRV/PRV
K. WASHINGTON - ETS/JB
F-PRV-6 J. PRICE-ETS/JB

ANALYZED BY: J Chapman
CERTIFIED BY: H. M Dowell
SEPTEMBER 28, 1996

FLORIDA POWER & LIGHT COMPANY
ENGINEERING & TECHNICAL SERVICES - CENTRAL LABORATORY
STATE OF FLORIDA LABORATORY CERTIFICATION NUMBERS
DRINKING WATER CERTIFICATION NUMBER: 56275
ENVIRONMENTAL CHEMISTRY CERTIFICATION NUMBER: E56078
COMPREHENSIVE QUALITY ASSURANCE PLAN NUMBER: 920041

RIVIERA PLANT
ANALYSES OF FUEL OIL FIRED OCTOBER 1996

DATE SAMPLED FROM: 09/20/96 TO 10/22/96

API GRAVITY	7.8
DENSITY, LB/GAL	8.460
DENSITY, LB/BBL	355.320
HEAT OF COMBUSTION, BTU/LB	18157
HEAT OF COMBUSTION, BTU/GAL	153608
HEAT OF COMBUSTION, MBTU/BBL	6452
WATER, % BY VOLUME	0.1
COKING INDEX, % BY WEIGHT	9.6
SULFUR, % BY WEIGHT	2.1
SULFUR DIOXIDE EQUIVALENT, LB/MBTU	2.3
ASH, % BY WEIGHT	0.06
PARTICULATE EQUIVALENT, LB/MBTU	0.03
VANADIUM IN ASH AS V2O5, % BY WEIGHT	24
VANADIUM IN OIL AS V2O5, PPM	138
VANADIUM IN OIL AS V, PPM	77
VISCOSITY, SSF @ 122F	363

COMMENTS: NITROGEN=0.23 %
COPIES TO: PRV PLANT MGR. PRV/PRV
ENV. SPEC. - PRV/PRV
TECHNICAL MANAGER PRV/PRV
K. WASHINGTON - ETS/JB
F-PRV-6 J. PRICE-ETS/JB

ANALYZED BY: [signature]
CERTIFIED BY: [signature]
OCTOBER 28, 1996

FLORIDA POWER & LIGHT COMPANY
ENGINEERING & TECHNICAL SERVICES - CENTRAL LABORATORY
STATE OF FLORIDA LABORATORY CERTIFICATION NUMBERS

ENVIRONMENTAL CHEMISTRY CERTIFICATION NUMBER: E56078
COMPREHENSIVE QUALITY ASSURANCE PLAN NUMBER: 920041

RIVIERA PLANT
ANALYSES OF FUEL OIL FIRED NOVEMBER 1996

DATE SAMPLED FROM: 10/22/96 TO 11/19/96

API GRAVITY	8.6
DENSITY, LB/GAL	8.412
DENSITY, LB/BBL	353.304
HEAT OF COMBUSTION, BTU/LB	18157
HEAT OF COMBUSTION, BTU/GAL	152737
HEAT OF COMBUSTION, MBTU/BBL	6415
WATER, % BY VOLUME	0.1
COKING INDEX, % BY WEIGHT	9.5
SULFUR, % BY WEIGHT	2.1
SULFUR DIOXIDE EQUIVALENT, LB/MBTU	2.3
ASH, % BY WEIGHT	0.06
PARTICULATE EQUIVALENT, LB/MBTU	0.03
VANADIUM IN ASH AS V2O5, % BY WEIGHT	20
VANADIUM IN OIL AS V2O5, PPM	113
VANADIUM IN OIL AS V, PPM	63
VISCOSITY, SSF @ 122F	350

COMMENTS: NITROGEN=0.30 %

COPIES TO: PRV PLANT MGR. PRV/PRV
ENV. SPEC. - PRV/PRV
TECHNICAL MANAGER PRV/PRV
K. WASHINGTON - ETS/JB
F-PRV-6 J. PRICE-ETS/JB

ANALYZED BY: J Sparrow

CERTIFIED BY: K. McDonald

NOVEMBER 28, 1996

FLORIDA POWER & LIGHT COMPANY
CENTRAL LABORATORY
STATE OF FLORIDA LABORATORY CERTIFICATION NUMBERS

ENVIRONMENTAL CHEMISTRY CERTIFICATION NUMBER: E56078
COMPREHENSIVE QUALITY ASSURANCE PLAN NUMBER: 920041

RIVIERA PLANT
ANALYSES OF FUEL OIL FIRED DECEMBER 1996

DATE SAMPLED FROM: 11/19/96 TO 12/20/96

API GRAVITY	8.1
DENSITY, LB/GAL	8.442
DENSITY, LB/BBL	354.564
HEAT OF COMBUSTION, BTU/LB	18189
HEAT OF COMBUSTION, BTU/GAL	153552
HEAT OF COMBUSTION, MBTU/BBL	6449
WATER, % BY VOLUME	0.0
COKING INDEX, % BY WEIGHT	8.9
SULFUR, % BY WEIGHT	2.1
SULFUR DIOXIDE EQUIVALENT, LB/MBTU	2.3
ASH, % BY WEIGHT	0.05
PARTICULATE EQUIVALENT, LB/MBTU	0.03
VANADIUM IN ASH AS V2O5, % BY WEIGHT	19
VANADIUM IN OIL AS V2O5, PPM	100
VANADIUM IN OIL AS V, PPM	56
VISCOSITY, SSF @ 122F	348

COMMENTS: NITROGEN=0.23 %

COPIES TO: PRV PLANT MGR. PRV/PRV
ENV. SPEC. - PRV/PRV
TECHNICAL MANAGER PRV/PRV
K. WASHINGTON - ETS/JB
F-PRV-6 J. PRICE-ETS/JB

ANALYZED BY: [signature]
CERTIFIED BY: [signature]
DECEMBER 28, 1996

Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

CLAIR

March 31, 1997

Ms. Virginia B. Wetherell, Secretary
State of Florida
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Change of Responsible Official Designation
Title V Program

Dear Ms. Wetherell:

This correspondence is to certify that Ms. Jay Asaibene has replaced Mr. John Lindsay as Plant General Manager of the FPL Riviera Plant. As Plant General Manager, Ms. Asaibene is authorized to act as the "Responsible Official" for that facility, pursuant to State Rule 62-213.200, F.A.C.. Ms. Asaibene is hereby authorized to act on behalf of Florida Power & Light Company on all Title V permit related activities for the Riviera plant.

Sincerely,

Adalberto Alfonso
Vice President
Power Generation Business Unit
Florida Power & Light Company

cc: Scott Sheplak — FDEP DARM
Tom Tittle — FDEP Southeast District

DEPARTMENT OF
ENVIRONMENTAL PROTECTION

APR 04 1997

OFFICE OF THE SECRETARY

an FPL Group company

Date: 3/26/97 1:26:53 PM
From: Jeffery Koerner WPB
Subject: FPL Riviera Beach Power Plant - Used Oil Fuel

Susan,

I checked the 1996 Annual Operating Report for this facility. They reported no used oil fuel burned during 1996. It is my understanding that the used oil fuel is mineral oil recovered from miscellaneous electrical components and stored at regional tank farms. These tank farms sample and analyze the used oil fuel to ensure that it meets the federal requirements for "on-specification" used oil fuel. It is then blended with No. 2 or No. 6 oil for burning in industrial-sized boilers on site at the tank farm. These boilers are used to heat and thin the No. 6 oil prior to pumping through the pipeline.

Although most of the FPL sites are allowed by permit to burn used oil fuels, they try not to because of the extra requirements to sample, analyze and keep records. They prefer to leave this fuel to the tanks farms. However, some of the gas turbines at various sites do burn used oil fuels containing less than 2 ppm of PCBs. The used oil fuels usually contain less than 0.5% sulfur by weight.

I also checked the quarterly fuel analyses submitted to our agency for the Riviera Beach Power Plant. These reports, dating back to 1995, indicate that no used oil fuel was burned at this plant. FPL does have a tank farm in Palm Beach County that does burn used oil fuel in industrial boilers. The facility ID number is 0990123.

I have attached Facility Emission Reports for each of these sites. Please call if you have any other questions.

Jeff

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR RESOURCES MANAGEMENT SYSTEM
26-MAR-97 FACILITY EMISSION REPORT

AIRS ID: 0990042 # of Emissions Unit: 4
Owner: FLORIDA POWER & LIGHT
Name: RIVIERA
City: RIVIERA BEACH Office: SEPB County: PALM BEACH
Status: A Compliance Tracking Code: A DFC: 25-SEP-96
Type: STEAM ELECTRIC PLANT
SIC: 4911 PSD: N PPS: N NSPS: NESHAP:
Title V Source: Y Syn Non-Title V Source: Small Business Stationary:
Major of HAPS: Major of Non-HAP Pollutants: Y
Syn Minor of HAPS: Syn Minor of Non-HAP Pollutants:

Pollutant	Poten(TPY)	Allow(TPY)	1995 Actual(TPY)	1994 Actual(TPY)
PM	2338.8200		1464.1700	2006.7800
SO2	36768.2500		26765.7800	29640.1000
NOX	15898.4000		6202.3310	5732.4800
VOC	40.4750		215.3100	64.2800
CO	1157.3200		974.6880	427.6400
PM10	0.0000		1464.1700	2006.7800
PB	0.0000		0.0500	0.1800

(It looks like the PTE needs to be changed for some of these pollutants based on the NOx RACT permit revision; apparently the permit engineers did not make these changes yet.)

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR RESOURCES MANAGEMENT SYSTEM
26-MAR-97 FACILITY EMISSION REPORT Page:1

AIRS ID: 0990123 # of Emissions Unit: 6
Owner: FLORIDA POWER & LIGHT
Name: FPL - OSF/PDC
City: RIVIERA BEACH Office: SEPB County: PALM BEACH
Status: A Compliance Tracking Code: B DFC: 09-AUG-96
Type: PETROLEUM STORAGE/TRANSFER
SIC: 4911 PSD: N PPS: N NSPS: N NESHAP: N
Title V Source: N Syn Non-Title V Source: Y Small Business Stationary: N
Major of HAPS: N Major of Non-HAP Pollutants: N
Syn Minor of HAPS: N Syn Minor of Non-HAP Pollutants: Y

Pollutant	Poten(TPY)	Allow(TPY)	1995 Actual(TPY)	1994 Actual(TPY)
VOC	9.3600		11.8260	0.0050
SO2	91.1800		2.9300	1.7515
PM	8.1300		2.7900	0.0500
NOX	30.2600		15.6100	0.4904
CO	6.9400		2.7000	0.1341
PM10	7.6300		1.5880	0.0000
PB	0.5800		0.0000	0.0000

(The actual VOC emissions reported for 1995 look too high; we're checking this now.)

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Memorandum

To: Vito Giarrusso, FPL
Sent Via Fax: 561/691-7070

From: Joe Kahn, DEP, Title V Section

Date: October 21, 1997

Re: FPL Riviera Draft Permit Comments
Draft Permit No. 0990042-001-AV

Per our teleconference October 9, 1997 and your comment letter dated October 8, 1997, following are the changes we propose to address your comments. Please look these over and call me with your comments.

For Facility-wide condition 10 electronic mail has been added as an option for submitting applicable correspondence. It has been noted that the Continuous Emission Monitoring data reported under the Acid Rain section is to be submitted to the Acid Rain Division in Washington.

> **10.** Submittals. All reports, tests, notifications or other submittals required by this permit shall be submitted to the Broward County Department of Natural Resource Protection, Air Quality Division, and copies of those submittals shall be sent to the Department of Environmental Protection, Southeast District Office, Air Section. Certain correspondence may be submitted via electronic mail as appropriate. Certain Acid Rain Reports may be submitted to EPA's Acid Rain Division in Washington. Addresses and telephone numbers are:
> ...

In condition A.17 the wording "5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile" has been removed.

> **A.17.** Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
> ...
> 4. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
> a. Visible emissions, if there is an applicable standard;
> b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 100 tons per year or more of any other regulated air pollutant; and
> c. Each NESHAP pollutant, if there is an applicable emission standard

Condition A.27 has been revised to refer to condition A.26.

Condition A.34 has been revised:

> **A.34.** Fuel Analyses Report. The owner or operator shall, by the fifteenth day of each month, submit to the Palm Beach County Health Department, Air Section, a report of fuel analyses that are representative of each fuel fired in the preceding month. The report shall document the heating value, the density or specific gravity, and the percent sulfur content by weight of each fuel fired.
> [Rule 62-4.070(3) and 62-213.440, F.A.C., AO 50-206721 Specific Condition 3, AO 50-206722 Specific Condition 3]

Appendix E-1 has been revised per your request and now reads:

> ...
> 7. Hazardous waste accumulation building
> 8. Paint and lube buildings
> ...

We added to the footnote number 1 for Table 1-1 a statement that equivalent emissions are for each unit.

Apparently we published the Notice of Intent in the Palm Beach Post on October 8th, but we are still waiting for proof of publication. That puts us at November 7th as the earliest date to make this permit Proposed.

10/9/97 TELECONF.
FPL RIVIERA

TONY RANK - FPL RIVIERA
VITO GIARUSSO - FPL
JOE KAHN, SUSAN DEVORE - DEP

FPL COMMENTS

P.5, #10 QTRLY CEMS REPORTS E-MAILED TO EPA

"CERTAIN CORRESPONDENCE MAY BE E-MAILED AS APPROPRIATE."
"CERTAIN ACID RAIN REPORTS MAY BE SUBMITTED TO EPA ACID RAIN DIVISION WASHINGTON."

P.9 OK
P.13 OK, TYPO.
P.15 INCONSISTENT W/ CURRENT PRACTICES.

APP. E-1 OK.

DEP COMMENTS
ADD NOTE TO TABLE 1-1 — EQUIV. EMISSIONS ARE FOR EACH UNIT.
OK W/ FPL.

Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 2

To S. SHEPLAK	From VITO GIARRUSSO
Co.	Co. FPL
Dept.	Phone # 561-691-7061
Fax #	Fax # 561-691-7070

October 8, 1997

Mr. Scott Sheplak, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resources Management
Title V Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Draft Permit No. 090042-001-AV
FPL Riviera Plant Initial Title V Air Operation Permit

Dear Mr. Sheplak:

After reviewing the subject draft Title V permit, FPL has identified several issues which need to be addressed. Please contact me at your earliest convenience to discuss them. Listed below are suggested changes to the language in the draft permit.

Section II. Facility-wide Conditions

Page 5 - No. 10. Submittals: We propose adding an electronic mail as an additional option for applicable correspondence. Also note that Continuous Emission Monitoring data reported under the Acid Rain section is submitted to the Acid Rain Division in Washington.

Section III. Emissions Unit(s) and Conditions

Page 9 - **Specific Condition A.17: Frequency of Compliance Tests (a) 4. b.:** We request removing the wording "5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; ". The maximum potential to emit lead would be under the following unit conditions, burning 100% oil, at full load and for 8,760 hours resulting in .09 tons per year per unit. Acrylonitile is not emitted.

Page 13 - **Specific Condition A.27: Record Keeping and Reporting Requirements :** The second sentence references specific condition A.27. The reference should be A.26.

Page 15 - **Specific Condition A.34: Fuel Analysis Report:** We request removing the word received and insert the word fired in the first sentence. In the second sentence we request rewording the sentence to read, The report shall document the heating value, the density or specific gravity, and the percent sulfur content by weight of each fuel fired.

Appendix E-1, List of Exempt Emissions Units and/or Activities:
Please revise descriptions no.7 to, Hazardous waste accumulation building and no. 8 to Paint and lube buildings.

Thank you for your prompt attention to the issues raised in this correspondence. Please do not hesitate to contact me at (561) 691-7061 if I may be of further assistance.

Very truly yours,

Vito Giamusso

Vito Giamusso
Sr. Environmental Specialist
Florida Power & Light Company

Florida Power & Light Company, P.O. Box 088801, North Palm Beach, FL 33408-8801

FPL

September 30, 1996

Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
State of Florida
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Electronic Submittal of FPL Riviera Plant Title V Application

Dear Mr. Fancy:

Enclosed, pursuant to DEP Rules 62-210.300(2), F.A.C., and 62-213.420(1)(a)1.a., F.A.C., please find four (4) electronic copies of the subject Title V permit application in the ELSA format. Please note that these are in addition to the four hard copies which have previously been submitted to your office.

If you have any questions regarding this application, please do not hesitate to contact me at (561) 625-7661.

Very truly yours,

Richard Piper
Senior Environmental Specialist
Florida Power & Light Company

cc:

DEP Southeast District Office (w/o att)

THE PALM BEACH POST

Published Daily and Sunday
West Palm Beach, Palm Beach County, Florida

PROOF OF PUBLICATION

STATE OF FLORIDA
COUNTY OF PALM BEACH

Before the undersigned authority personally appeared **Chris Bull** who on oath says that she is **Classified Advertising Manager** of The Palm Beach Post, a daily and Sunday newspaper published at West Palm Beach in Palm Beach County, Florida; that the attached copy of advertising, being a Notice in the matter of P.O. #: [redacted] in the - - - Court, was published in said newspaper in the issues of October 8, 1997. 830999

Affiant further says that the said The Post is a newspaper published at West Palm Beach, in said Palm Beach County, Florida, and that t the said newspaper has heretofore been continuously published in said Palm Beach County, Florida, daily and Sunday and has been entered as second class mail matter at the post office in West Palm Beach, in said Palm Beach County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she/he has neither paid nor promised any person, firm or corporation any discount rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Chris Bull

Sworn to and subscribed before me this 14 day of October A.D. 1997

Personally known XX or Produced Identification _____
Type of Identification Produced _____

Karen McLinton
Notary Public, State of Florida
Commission No. CC 591337
My Commission Exp 11/15/2000
1-800-NOTARY Fla. Notary Service & Bonding Co

NO. 393840
PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Title V DRAFT Permit No.: 0990042-001-AV
Riviera Plant
Palm Beach County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V air operation permit to Florida Power and Light Company for the Riviera Plant located at 200-300 Broadway, Riviera Beach, Palm Beach County. The applicant's name and address are: Florida Power and Light Company, FPL Environmental Services Department, 700 Universe Blvd., Juno Beach, FL 33408.

The permitting authority will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the Title V 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 conditions concerning the proposed Title V 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.

The permitting authority will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, Florida Statutes (F.S.). Mediation under Section 120.573, F.S., will not be available for this proposed action.

A person whose substantial interests are effected 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: 850/488-9730; Fax: 850/487-4938). Petitions must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of the notice of intent, whichever occurs first. A petitioner must 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 28-5.207 of the Florida Administrative Code.

A petition must contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number, and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the permitting authority's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the per-

facts disputed by the petitioner, if any;
(e) A statement of the facts that the petitioner contends warrant reversal or modification of the permitting authority's action or proposed action;
(f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the permitting authority's action or proposed action; and,
(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the permitting authority to take with respect to the action or proposed action addressed in this notice of intent.
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.
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 401 M. Street, SW, 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: 850/488-1344
Fax: 850/922-6979
Affected District
/Local Program:
Mr. Isidore Goldman,
Southeast District Office
400 North Congress Avenue
West Palm Beach, FL 33401
Telephone: 561/681-6600
Fax: 561/681-6790
Mr. James Stormer,
Palm Beach County
Health Department
901 Evernia Street,
P.O. Box 29
West Palm Beach, FL 33401
Telephone: 561/355-3070
Fax: 561/355-2442
The complete project file includes the DRAFT Permit, the application, 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 850/488-1344, for additional information.
PUB: The Palm Beach Post
October 8, 1997

General Corr - File

Florida Department of

Memorandum Environmental Protection

TO: Isidore Goldman, SED

FROM: Bruce Mitchell

DATE: January 22, 1997

SUBJECT: Completeness Review of an Application Package for a Title V Operation Permit
Florida Power & Light, Riviera Beach: 0990042-001-AV

The Title V operating permit application package for the referenced facility is being processed in Tallahassee. The application was previously forwarded to your office for your files and future reference. Please have someone review the package for completeness and respond in writing by February 24, 1997, if you have any comments. Otherwise, no response is required. If there are any questions, please call the project engineer, Susan C. DeVore, at 904/488-1344 or SC:278-1344. It is very important to verify the compliance statement regarding the facility. Since we do not have a readily effective means of determining compliance at the time the application was submitted, please advise if you know of any emissions unit(s) that were not in compliance at that time and provide supporting information. Also, do not write on the documents.

If there are any questions regarding this request, please call me or Scott Sheplak at the above number(s).

RBM/bjb

cc: Joe Kahn

Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

July 7, 1997

Mr. Scott M. Sheplak, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: FPL Riviera Plant
Title V Permit Request for Additional Information

Dear Mr. Sheplak:

This correspondence is in response to your letter of April 24, 1997. Following are responses to each of the concerns raised in your letter.

A. Application Information

1. From the Application Comment section it is noted that "the facility at one time operated a 75 MW steam generating unit (Unit 2, permit # AO50-174444); however this unit is no longer in service". Please provide the date the unit was removed from service. Has the permit been surrendered to the Department? If so, please provide the letter.

Response: This unit last operated for power production in 1985. The permit was not, however surrendered to the Department. By copy of this letter, FPL formally relinquishes the permit for this unit to the Department.

B. Facility Information

1. Please provide a copy of document PRVFS_11.txt, Identification of Additional Applicable Requirements. The referenced document appears to be missing from Section E.

Response: The reference to the document was in error. Additional applicable requirements are listed in each of the Emission Unit sections of the application. I have attached a revised Section II.E. Facility Supplemental Information page without the incorrect reference.

2. Attachment to the application, List of Unregulated Trivial and De Minimis Activities, contained a consolidated listing of trivial activities, unregulated emissions units and activities that you propose for exemption. Please resubmit as follows:

a) Group the unregulated activities into logical groupings of emissions units and indicate any pollutants that have the potential to emit quantities equal to or greater than the threshold levels specified in Rules 62-213.420(3)(c)3. and 4., F.A.C., from each of the unregulated emissions units.

b) Identify emissions units that you claim should be exempted and provide adequate information to demonstrate that emissions levels are below the levels established for exemption at Rule 62-213.430(6), F.A.C.

c) Do not include trivial activities in the application.

Response: The majority of the activities are, in fact trivial, and have been eliminated from our list per your request.

Activities requested for exemption *are as follows:*

Item	**Rationale**
Natural gas metering area relief valves	Safety equipment is exempted by Rule 62-210.300(3)(a)22k F.A.C..
Hydrazine mixing tank	This is an aqueous product stored in stainless steel bins. Typically the facility uses less than two, 135-gallon bins per year; therefore the emissions of hydrazine are below the 1,000 lb. threshold.
Fuel Oil storage tanks and related systems	Combined VOC emissions of the fuel oil storage tanks & equipment are less than the 5 ton threshold.
Lube Oil system	Lubricating oil has a low volatility. There is insufficient quantity on hand at facility to produce a 5 ton release.
Oil / water Separators and related equipment	VOC's are below the 5 ton threshold.
Hazardous Waste Bldg.	Drums are maintained closed. Less than the threshold quantity of any regulated air pollutant.

Paint / Lube Bldg.	Containers are maintained closed. Less than the threshold quantity of any regulated air pollutant.
Miscellaneous mobile vehicle operation (cars, light trucks, heavy duty trucks, backhoes, tractors, forklifts, cranes, etc.)	Exempted by Rule 62-210.300(3)(a)5.

Unregulated Activities are proposed as follows:

1. Painting and solvent cleaning - VOC emissions could exceed 5 TPY
2. Mobile Equipment and Engines - combined Nox emissions could exceed 5 TPY
3. Emergency Diesel Generator - NOx, CO, VOC, PM and SO2 emissions could each exceed 5 TPY if the generator is operated 8,760 hours per year.

3. In the pollutant identification sections of the application, Sections C (facility) and G (units 3 and 4), what does "HAP" refer to?

Response: The references should have been "HAPS". I have attached corrected pages to this submittal.

C. Emission Units 3 and 4: Boilers

1. The maximum permitted sulfur content is 2.5 percent, by weight. In permits AO 50-206721 and AO 50-206722, the sulfur content is to be verified by submittal of monthly fuel analyses reports and stack testing for SO_2 using EPA Method 6 is required if the sulfur content of the fuel exceeds 2.5 percent, by weight. Please confirm FPL relies upon its own sampling and analysis program. Please confirm no stack tests for SO_2 have been conducted. Please advise if you wish to avoid such compliance test requirements by requesting a maximum fuel oil sulfur content limit of 2.5 percent, by weight, and then relying on fuel sampling and analysis to demonstrate compliance.

Response: FPL does currently rely upon its own sampling and analysis program for fuel sulfur content. The maximum permitted sulfur dioxide emissions are 2.75 lb / mmBtu. FPL may occasionally purchase fuel oil containing in excess of 2.5% sulfur, to be co-fired in the Riviera boiler units with other, lower sulfur oil, or with natural gas. In lieu of performing stack sampling for sulfur dioxide emissions, we propose to submit a certification document to the Southeast District office on a quarterly basis, stating that sufficient natural gas or other low-sulfur fuel was co-fired in the Riviera units along with any fuel with sulfur content higher than 2.5%, to ensure that the 2.75 lb / mmBtu emission limit was not exceeded. Attached is an example certification document for your review. Please note that FPL has utilized this approach at other facilities in our system at the Department's suggestion, for similar situations.

2. In Section L for Unit 3 it appears that document PRVU1_1.bmp, Process Flow Diagram, is labeled as PRVEU1_1.bmp. In Section L for Unit 3 it appears that document PRVU1_4.bmp, Description of Stack Sampling Facilities, is labeled as PRVU1_1.bmp. In Section L for Unit 4 it appears that document PRVU2_1.bmp, Process Flow Diagram, is labeled as PRVEU2_1.bmp. In Section L for Unit 4 it appears that document PRVU2_4.bmp, Description of Stack Sampling Facilities is labeled as PRVU2_1.bmp. Please confirm or correct this.

Response: Your observations are correct. I have revised the various Section L's, which are attached for your use.

3. Also, "Previously Submitted" should have been entered in the Acid Rain Application - Phase II form information blank instead of "Not Applicable" in Section L.

Response: Noted. A corrected Section L is attached.

4. Are Units 3 and 4 front wall fired, natural circulation, 24-burner, compact furnaces and thus subject to Rule 62-296.570(4)(b)3., F.A.C. as you have identified as the applicable requirement in the application?

Response: Yes, that is the description for these units.

I trust that this letter will address the various concerns that were raised in your April 24th letter. Please do not hesitate to contact me at (561) 691-7058 if I may be of further assistance.

Very truly yours,

Rich Piper

Rich Piper
Sr. Environmental Specialist
Florida Power & Light Company

7/14/97 cc: Scott Sheplak
Susan DeVore

Quarterly Fuel Certification

This is to certify that during the ___ quarter 199__ all residual oil containing > 2.5% sulfur fired in either of the Riviera Plant units was co-fired with sufficient natural gas or other low-sulfur fuel to ensure that the permitted emission limit of 2.75 lb / mmBtu of sulfur dioxide was not exceeded.

_____

Jay Asaibene
Plant General Manager

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E. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications For Facility :*I*

1. Area Map Showing Facility Location: PRVFS-1.bmp **(Enter the Attached Document ID, NA - Not Applicable, Waived - WaiverRequested, or Attach an Electronic Submission File)**
2. Facility Plot Plan: PRVFS-2.bmp **(Enter the Attached Document ID, NA - Not Applicable, Waived - WaiverRequested, or Attach an Electronic Submission File)**
3. Process Flow Diagram(s): PRVFS-3.bmp **(Enter the Attached Document ID, NA - Not Applicable, Waived - WaiverRequested, or Attach an Electronic Submission File)**
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: PRVFS-4.txt **(Enter the Attached Document ID, NA - Not Applicable, Waived - WaiverRequested, or Attach an Electronic Submission File)**
5. Fugitive Emissions Identification : PRVFS-5.txt **(Enter the Attached Document ID, NA - Not Applicable, Waived - WaiverRequested, or Attach an Electronic Submission File)**
6. Supplemental Information for Construction Permit Application: NA **(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)**

Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities: Not Applicable **(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)**
8. List of Equipment/Activities Regulated under Title VI: PRVFS-8.txt **(Enter the Attached Document ID, NA - Not Applicable, Onsite - Equipment/Activities Onsite but not Required to be Individually Listed, or Attach an Electronic Submission File)**
9. Alternative Methods of Operation: PRVFS-9.txt **(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)**
10. Alternative Modes of Operation (Emissions Trading): NA **(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)**
11. Identification of Additional Applicable Requirements: NA **(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)**

12. Compliance Assurance Monitoring Plan: NA

(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)

13. Risk Management Plan Verification: PLANNED

(Enter the Attached Document ID, NA - Not Applicable, Plan Submit - Plan to be submitted to Implementing Agency by Required Date, or Attach an Electronic Submission File)

14. Compliance Report and Plan: PRVFS-13.txt

(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)

15. Compliance Statement (Hard-copy Required): PRVFS-14.txt

(Enter the Attached Document ID, NA - Not Applicable)

C. FACILITY POLLUTANTS

Facility Pollutant Information :

1. Pollutant Emitted:	2. Pollutant Classification
SO2	A
NOX	A
CO	A
VOC	A
PM	A
PM10	A
H133	A
H106	A
H107	A
SAM	A
HAPS	A

G. EMISSIONS UNIT POLLUTANTS
(Regulated Emissions Units Only)

Information for Facility_ID: *1* Emission Unit #: *1*

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
SO2	NA	NA	EL
NOX	024	NA	EL
CO	NA	NA	NS
VOC	NA	NA	NS
PM	077	NA	EL
PM10	077	NA	NS
H133	NA	NA	NS
H106	NA	NA	NS
H107	NA	NA	NS
SAM	NA	NA	NS
HAPS	NA	NA	NS

G. EMISSIONS UNIT POLLUTANTS
(Regulated Emissions Units Only)

Information for Facility_ID: *1* **Emission Unit #:** *2*

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
SO2	NA	NA	EL
NOX	024	NA	EL
CO	NA	NA	NS
VOC	NA	NA	NS
PM	077	NA	EL
PM10	077	NA	NS
H133	NA	NA	NS
H106	NA	NA	NS
H107	NA	NA	NS
SAM	NA	NA	NS
HAPS	NA	NA	NS

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION (Regulated Emissions Units Only)

Information for Facility-ID : *1* Emission Unit # : *1*

Supplemental Requirements for All Applications

1. Process Flow Diagram : PRVEU1_1.bmp **(Enter the Attached Document ID, NA - Not Applicable, Waived - WaiverRequested, or Attach an Electronic Submission File)**
2. Fuel Analysis or Specification: PRVU1_2.txt **(Enter the Attached Document ID, NA - Not Applicable, Waived - WaiverRequested, or Attach an Electronic Submission File)**
3. Detailed Description of Control Equipment : PRVU1_3.txt **(Enter the Attached Document ID, NA - Not Applicable, Waived - WaiverRequested, or Attach an Electronic Submission File)**
4. Description of Stack Sampling Facilities : PRVU1_1.bmp **(Enter the Attached Document ID, NA - Not Applicable, Waived - WaiverRequested, or Attach an Electronic Submission File)**
5. Compliance Test Report : NA **(Enter the Attached Document ID, NA - Not Applicable, A valid Previously Submitted date, or Attach an Electronic Submission File)**
6. Procedures for Startup and Shutdown : PRVU1_6.txt **(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)**
7. Operation and Maintenance Plan : NA **(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)**
8. Supplemental Information for Construction Permit Application : NA **(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)**
9. Other Information Required by Rule or Statute : NA **(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)**

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation : PRVU1_10.txt
(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)

11. Alternative Modes of Operation (Emissions Trading) : NA
(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)

12. Identification of Additional Applicable Requirements : PRVU1_12.txt
(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)

13. Enhanced Monitoring Plan : NA
(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)

14. Acid Rain Permit Application

Acid Rain Application - Phase II (Form No. 17-210.900(1)(a))
Attached Document ID: Previously Submitted

Repowering Extension Plan (Form No. 17-210.900(1)(b))
Attached Document ID: NA

New Unit Exemption (Form No. 17-210.900(1)(c))
Attached Document ID: NA

Retired Unit Exemption (Form No. 17-210.900(1)(c))
Attached Document ID: NA

(For each Document, Enter the Attached Document ID or NA - Not Applicable)

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION (Regulated Emissions Units Only)

Information for Facility-ID : *1* Emission Unit # : *2*

Supplemental Requirements for All Applications

1. Process Flow Diagram : PRVEU2_1.bmp **(Enter the Attached Document ID, NA - Not Applicable, Waived - WaiverRequested, or Attach an Electronic Submission File)**
2. Fuel Analysis or Specification: PRVU1_2.txt **(Enter the Attached Document ID, NA - Not Applicable, Waived - WaiverRequested, or Attach an Electronic Submission File)**
3. Detailed Description of Control Equipment : PRVU1_3.txt **(Enter the Attached Document ID, NA - Not Applicable, Waived - WaiverRequested, or Attach an Electronic Submission File)**
4. Description of Stack Sampling Facilities : PRVU2_1.bmp **(Enter the Attached Document ID, NA - Not Applicable, Waived - WaiverRequested, or Attach an Electronic Submission File)**
5. Compliance Test Report : NA **(Enter the Attached Document ID, NA - Not Applicable, A valid Previously Submitted date, or Attach an Electronic Submission File)**
6. Procedures for Startup and Shutdown : PRVU1_6.txt **(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)**
7. Operation and Maintenance Plan : NA **(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)**
8. Supplemental Information for Construction Permit Application : NA **(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)**
9. Other Information Required by Rule or Statute : NA **(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)**

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation : PRVU1_10.txt
(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)

11. Alternative Modes of Operation (Emissions Trading) : NA
(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)

12. Identification of Additional Applicable Requirements : PRVU1_12.txt
(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)

13. Enhanced Monitoring Plan : NA
(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)

14. Acid Rain Permit Application

Acid Rain Application - Phase II (Form No. 17-210.900(1)(a))
Attached Document ID: Previously Submitted

Repowering Extension Plan (Form No. 17-210.900(1)(b))
Attached Document ID: NA

New Unit Exemption (Form No. 17-210.900(1)(c))
Attached Document ID: NA

Retired Unit Exemption (Form No. 17-210.900(1)(c))
Attached Document ID: NA

(For each Document, Enter the Attached Document ID or NA - Not Applicable)

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:
   Name: Ms. Jay Asaibene
   Title : Plant General Manager

2. Owner or Responsible Official Mailing Address:

   Organization/Firm: FPL Environmental Services Department
   Street Address: 700 Universe Blvd
   City: Juno Beach State: FL Zip Code: 33408

3. Owner or Responsible Official Telephone Numbers:
   Telephone: 5618453101 Fax: 5618453155

4. Owner or Responsible Official Statement:

   I, the undersigned, am the owner or authorized representative of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200 F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statues of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.*

Jay Asaibene
Signature

5/23/97
Date

* Attach letter of authorization if not currently on file.

4. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for a emission unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check her [✓] if so), I further certify that each emissions unit described inthis Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emission units (check here [ ] if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature 6/18/97

Date

(seal)

* Attach any exception to certification statement.

Supplement to Professional Engineer Certification Statement

This information supplements the original Title V application for the FPL Riviera plant of June 1996 which was certified by Ken Kosky of KBN Engineering & Applied Sciences. This certification statement applies only to the following items included in this supplemental package submitted on May 25, 1997:

- List of Proposed Exempt Activities
- List of Proposed Unregulated Activities

Lonnie Adams
Signature 6/18/97

6/18/97
Date

(seal)

\projects\engcert.doc

Florida Department of
Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

August 2, 1993

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Elsa A. Bishop, Supervisor
Air Permitting and Programs
Florida Power & Light
P.O. Box 088801
North Palm Beach, Florida 33408-8801

Dear Ms. Bishop:

Re: Revised Operation Permit (NO_x RACT) - AO50-206721
Riviera Power Plant, Unit 3

Pursuant to Florida Administrative Code (F.A.C.) Rule 17-296.570, the Department hereby amends the above operation permit authorizing Florida Power & Light to proceed with modifications necessary to comply with NO_x RACT emission limits to be effective on or before May 31, 1995. The amendments listed below, along with the Department's RACT Determination, shall become attachments to and part of the current operation permit.

New Specific Conditions

R-1. The boiler fuel firing rate shall not exceed 3,050 MMBtu/hr during fuel oil firing or 3,260 MMBtu/hr during gas firing. The boiler may be operated 8,760 hours per year.

R-2. NO_x emissions from the boiler stack shall not exceed the following limits based on a 30-day rolling average:

	Natural Gas	Fuel Oil
lbs/MMBtu	0.50	0.62
lbs/hr	1,630	1,891

These interim limits shall be effective upon installation of NO_x emission controls or no later than May 31, 1995, whichever first occurs, and shall apply during the test program required in Specific Condition No. R-4 except during periods of startup, shutdown, or malfunction as provided by F.A.C. Rule 17-210.700. Following completion of the test program required in Specific Condition No. R-4, these limits may be revised.

R-3. As of January 1, 1995, a continuous monitoring system for NO_x emissions shall be installed, calibrated, maintained and operated

and the output recorded for determining compliance with the NO_x emission limits in Specific Condition R-2. Determination of compliance shall be in accordance with procedures equivalent to applicable requirements of 40 CFR 60 Subpart Da, including Sections 60.46a and 60.48a. Reporting of continuous NO_x emissions monitoring results shall be carried out in accordance with existing requirements for opacity reporting.

R-4. Beginning on the date that Low NO_x burners are installed, the permittee shall conduct an 18-month program designed to achieve a 40% reduction in NO_x emissions (from the 1990 baseline) using staged firing or other methods to meet the following target limits based on a 30-day rolling average:

	Natural Gas	Fuel Oil
lbs/MMBtu	0.43	0.55
lbs/hr	1,402	1,678

During the 18-month period, the permittee shall conduct stack tests and file quarterly reports with the Bureau of Air Regulation, in Tallahassee, summarizing progress toward attaining the target NO_x limits. At the end of the 18-month period, the Department may revise the NO_x limits in Specific Condition No. R-2.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this amendment. Petitions filed by other persons must be filed within 14 days of receipt of this amendment. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this amendment. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this amendment in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Sincerely,

Mary E. S. Williams
Director
Southeast District

MESW/JR/plm

Post-It® Fax Note 7671 | Date 5/20/97 | # of pages 3
To JOE KAHN | From L. PRAMAN
Co./Dept. AIR PROG/TALLY | Co.
Phone # | Phone #
Fax # 904 922-6979 | Fax #

Florida Environme

Twin Tow
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

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MAY 20 1997
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AIR REGULATION

August 2, 1993

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Elsa A. Bishop, Supervisor
Air Permitting and Programs
Florida Power & Light
P.O. Box 088801
North Palm Beach, Florida 33408-8801

Dear Ms. Bishop:

Re: Revised Operation Permit (NO_x RACT) - AO50-206722
Riviera Power Plant, Unit 4

Pursuant to Florida Administrative Code (F.A.C.) Rule 17-296.570, the Department hereby amends the above operation permit authorizing Florida Power & Light to proceed with modifications necessary to comply with NO_x RACT emission limits to be effective on or before May 31, 1995. The amendments listed below, along with the Department's RACT Determination, shall become attachments to and part of the current operation permit.

New Specific Conditions

R-1. The boiler fuel firing rate shall not exceed 3,050 MMBtu/hr during fuel oil firing or 3,260 MMBtu/hr during gas firing. The boiler may be operated 8,760 hours per year.

R-2. NO_x emissions from the boiler stack shall not exceed the following limits based on a 30-day rolling average:

	Natural Gas	Fuel Oil
lbs/MMBtu	0.50	0.62
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These interim limits shall be effective upon installation of NO_x emission controls or no later than May 31, 1995, whichever first occurs, and shall apply during the test program required in Specific Condition No. R-4 except during periods of startup, shutdown, or malfunction as provided by F.A.C. Rule 17-210.700. Following completion of the test program required in Specific Condition No. R-4, these limits may be revised.

R-3. As of January 1, 1995, a continuous monitoring system for NO_x emissions shall be installed, calibrated, maintained and operated

and the output recorded for determining compliance with the NO_x emission limits in Specific Condition R-2. Determination of compliance shall be in accordance with procedures equivalent to applicable requirements of 40 CFR 60 Subpart Da, including Sections 60.46a and 60.48a. Reporting of continuous NO_x emissions monitoring results shall be carried out in accordance with existing requirements for opacity reporting.

R-4. Beginning on the date that Low NO_x burners are installed, the permittee shall conduct an 18-month program designed to achieve a 40% reduction in NO_x emissions (from the 1990 baseline) using staged firing or other methods to meet the following target limits based on a 30-day rolling average:

	Natural Gas	Fuel Oil
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lbs/hr	1,402	1,678

During the 18-month period, the permittee shall conduct stack tests and file quarterly reports with the Bureau of Air Regulation, in Tallahassee, summarizing progress toward attaining the target NO_x limits. At the end of the 18-month period, the Department may revise the NO_x limits in Specific Condition No. R-2.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this amendment. Petitions filed by other persons must be filed within 14 days of receipt of this amendment. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this amendment. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this amendment in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Sincerely,

Mary E. S. Williams
Director
Southeast District

MESW/JR/plm

Reasonably Available Control Technology (RACT) Determination

Florida Power & Light Company
P.O. Box 088801
North Palm Beach, Florida 33408-8801

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation

July 15, 1993

FLORIDA POWER & LIGHT
RACT DETERMINATION

RACT Requirements

In accordance with Florida Administrative Code (F.A.C.) Rule 17-296.570, the owner or operator of any source subject to the Reasonably Available Control Technology (RACT) requirements for major VOC- and NO_x-emitting facilities shall apply to the Department by March 1, 1993, for a new or revised operation permit which requires implementation of RACT for VOC and NO_x emissions by May 31, 1995. The Department received formal RACT applications from Florida Power & Light (FPL) on February 4, 1993, which were supplemented by additional information and deemed complete on April 16, 1993. The revised operation permits for FPL are based on this RACT determination.

Since actual VOC emissions have been shown by stack testing to be well below the major source threshold of 100 tons per year and potential emissions, though previously not limited by existing permits, will now be limited by restricting fuel input, this RACT determination addresses only NO_x emissions.

Affected Facilities

FPL's facilities affected by the NO_x RACT rule, F.A.C. Rule 17-296.570, include the following gas/oil fired steam electric units and gas turbines in Broward, Dade and Palm Beach counties:

Steam Electric Units

Plant	County	Unit	MW	Permit No.	MMBTU/HR	1990 NOx (Tons)
Port Everglades	Broward	1	220	AO06-143214	2400	1,355.3
Port Everglades	Broward	2	220	AO06-143215	2400	1,701.8
Port Everglades	Broward	3	400	AO06-143217	4025	7,614.0
Port Everglades	Broward	4	400	AO06-143212	4025	3,906.9
Turkey Point	Dade	1	400	AO13-155469	4025	3,580.7
Turkey Point	Dade	2	400	AO13-155471	4025	6,209.8
Riviera	Palm Bch	3	300	AO50-206721	3230	4,870.9
Riviera	Palm Bch	4	300	AO50-206722	3230	3,473.1
Cutler	Dade	5	75	AO13-173751	800	79.2
Cutler	Dade	6	160	AO13-173753	1700	53.9

Gas Turbines

Plant	County	Unit	MW	Permit No.	MMBTU/HR	1990 NOx (Tons)
Port Everglades	Broward	1-12	486	AO06-148762	700	252.8
Lauderdale I	Broward	1-12	486	AO06-148760	700	376.4
Lauderdale II	Broward	13-24	486	AO06-148761	700	376.4

Facility Description

Port Everglades Steam Electric Units 1 and 2 are rear wall-fired controlled circulation units with 16 burners, each having a maximum heat input of 150 MMBTU/HR, and a combined heat release of 53 MBTU/HR/FT^3. These units were brought on line in the early sixties and are the oldest of the PPE units. Port Everglades Units 3 and 4, added in the mid sixties, and their sister units at Turkey Point (PTF-1 and -2), are front wall-fired natural circulation boilers with 18 burners, each having a maximum heat input of 224 MMBTU/HR, and a combined heat release of 88 MBTU/HR/FT^3. Riviera Steam Electric Units 3 and 4 were constructed in the early sixties and are front wall-fired natural circulation units with 24 burners, each having a maximum heat input of 135 MMBTU/HR, with a total heat release of 90 MBTU/HR/FT^3. Cutler Units 5 and 6, unlike the high-temperature compact design characteristic of FP&L's other units, have large furnaces with tangential firing, a feature which generates lower NO_x emissions than wall-fired units. The Cutler units have in-service dates of 1954 and 1958, respectively. The 36 gas and oil-fired peaking turbines, each with a capacity of 40.5 MW, were installed in the early seventies.

Shown below are furnace design data from the RACT application. For comparison with modern furnace design, the last row presents features of a typical Foster-Wheeler designed tower unit with overfire air (OFA) and flue gas recirculation (FGR). This design grew out of the need for enlarged furnaces with lower peak temperatures required for compliance with the New Source Performance Standards (NSPS) for NO_x which became effective in 1971 (Subpart D). Before then, boiler design had evolved through two distinctive stages - the high turbulence, high temperature, high efficiency compact design prevalent in the sixties, and the low temperature, larger volume, relatively unsophisticated combustion furnaces that were common up through the fifties.

Plant	MW	On-Line	OEM	Furnace Size	Burners	Heat Release (BTU/HR/FT^3)
PPE-1	220	1960	CE	25x48x95 ft	16	53,000
PPE-2	220	1961	CE	25x48x95 ft	16	53,000
PPE-3	400	1964	FW	28x70x114ft	18	88,000
PPE-4	400	1965	FW	28x70x114ft	18	88,000
PTF-1	400	1964	FW	28x70x114ft	18	88,000
PTF-2	400	1965	FW	28x70x114ft	18	88,000
PRV-3	300	1962	FW	24x77x62 ft	24	90,000
PRV-4	300	1963	FW	24x77x62 ft	24	90,000
PCU-5	75	1954	*	*	*	*
PCU-6	160	1958	*	*	*	*
NSPS	600	1971+	FW	42x65x167ft	30	48,000

*Data not found in FPL application
MW = Megawatts
CE = Combustion Engineering
FW = Foster-Wheeler
NSPS = New Source Performance Standard (Subpart D)
OEM = Original Equipment Manufacturer

The post-NSPS design, although larger in MW output by a factor of 1.5 (600 vs. 400), has a furnace volume larger than FPL's 400 MW units by a factor of 2.0. Likewise, the ratio of heat release to MW for the NSPS design is about one third of the ratio for FPL's 400 MW units. As will be explained below, such differences account for most of the thermal NO_x emissions and are indicative of the significant challenges encountered in retrofitting these high NO_x-emitting boilers to reduce emissions to levels achievable by modern designs.

Control Technology Description

Low-NO_x emission control alternatives generally involve one of three types of technologies; precombustion technologies such as switching to a lower nitrogen fuel, modifying the combustion characteristics of the furnace to generate less NO_x (combustion modification), or, treatment of the furnace flue gases to convert the NO_x to nitrogen (postcombustion treatment). The selection of the appropriate technology depends on the required degree of NO_x reduction and the capabilities of the various technologies available. Fundamental to an understanding of technology capabilities is an awareness of the mechanisms which cause NO_x formation and how combustion variables affect NO_x emissions.

The chemistry of NO_x formation involves the Zeldovich chain reaction mechanism whereby nitrogen and oxygen atoms react interchangeably with oxygen and nitrogen molecules to form nitric oxide (NO). This so-called "thermal NO_x" formation is highly dependent on temperature and air/fuel ratio. Thermal NO_x can be minimized by carefully controlling air flow and by taking steps to limit peak flame temperatures and residence time in the combustion zone. NO is also formed from the reactions between nitrogen in the combustion air and hydrocarbons in the fuel. The term "prompt NO" is given to this mechanism since its formation in the flame occurs prior to formation of thermal NO_x. According to the literature, prompt NO is typically below 5 percent of total NO_x except in the case of very low NO_x gas burners for which prompt NO is a major source of NO_x formation.

The third mechanism of NO_x formation is the oxidation of nitrogen contained in the fuel, called "fuel NO_x". Nongaseous fuels like coal and heavy fuel oil may contain from 0.5 to 2.0 percent nitrogen while natural gas and distillate oil typically have less than 0.05 percent nitrogen. It has been reported that the efficiency of conversion of fuel nitrogen to NO decreases with increasing nitrogen content with conversion efficiencies of 50 to 100 percent for distillate oils with up to 0.5 percent nitrogen and below 50 percent conversion for heavier oils. Excess air levels play a major role in fuel nitrogen conversion with low oxygen levels favoring N_2 formation instead of NO. This principle enables staged firing to achieve reduced NO_x emissions.

Combustion conditions determine the rate of NO_x formation and, naturally, the methods employed to modify those conditions determine the degree of reduction achieved. The degree of reduction is limited by the capability of

the method and the initial level of uncontrolled NO_x. The following discussion covers major aspects of the applicable methods of modifying burner operating conditions or equipment and NO_x removal capabilities. Also discussed are flue gas treatment methods including SNCR and SCR.

Burners Out of Service (BOOS)/Overfire Air (OFA)/Staged Firing

Staged air firing, also called Off-Stoichiometric (OSC) combustion, involves initial firing of the fuel in an air-lean mode followed by completion of combustion in an air-rich zone. This may be accomplished by proportioning fuel/air ratios among upper and lower rows of burners or by shutting off the fuel to upper row burners while firing lower rows fuel-rich (BOOS). A similar effect is achieved by injecting air through ports located above the burners (OFA). With staged air firing, generation of thermal NO_x is reduced since there is less air in the zone of peak flame temperature. Less fuel NO_x results due to the tendency to form N_2 vs. NO in the fuel-rich flame. NO_x reductions of 10-50 percent or higher, depending on the application and the initial concentrations, have been reported for the various staged air firing methods. Staged fuel firing, also called Reburn, is accomplished by creating a fuel rich zone or secondary flame downstream of the primary combustion zone. Secondary air is injected above the fuel rich zone to complete the combustion. Reburn removal efficiencies of 40-60 percent have been claimed although residence time constraints can limit effectiveness of this method.

Flue Gas Recirculation (FGR)

Lower peak temperatures and therefore lower thermal NO_x emissions result when air flow to the burner is mixed with recirculated flue gases prior to combustion. The use of flue gas as a diluent, up to about 20 percent, also helps to reduce thermal NO_x formation by lowering the amount of excess air in the primary flame zone. FGR can be accomplished by pre-mixing with combustion air or by direct injection into the combustion zone. Injection outside of the combustion zone does not result in significant reduction of NO_x. Though this NO_x reduction method can be very effective, potential problems include increased carbon monoxide and hydrocarbon emissions as well as an energy penalty resulting from reduced furnace temperatures. Reductions in NO_x of 30-60 percent are typical, however. Application may not be cost effective where extensive furnace modifications such as additional ducting, high temperature blowers, etc., are required. An equivalent effect can be achieved, though at higher operating cost, by steam or water injection. Due to its high energy penalty, the steam/water injection method has not been applied to any significant extent except in the case of gas turbines.

Low NOx Burners (LNB)

By staging the air or fuel flows to each burner rather than establishing air lean/rich furnace zones as discussed above, similar NO_x reductions can be attained while boiler retrofitting is less complicated. This has become the method preferred by utilities since it is relatively straightforward and can usually be accomplished during scheduled outages. Various means of

burner air and fuel staging have been used with typical NO_x removal rates of 25-35 percent depending on the application. Staged air burners proportion the air so that part of the air flows peripherally in and around the primary combustion zone. This creates a fuel rich initial combustion zone inhibiting fuel NO_x formation and results in a longer, lazier flame with less thermal NO_x. Staged fuel (gas only) burners accomplish two-stage combustion by mixing part of the fuel with all of the air flow in the primary zone and injecting the balance of the fuel around the perimeter of the flame. Thermal NO_x is lower because of lower peak flame temperatures resulting from the high air to fuel ratio in the primary zone. Staged fuel burners may be slightly more efficient than staged air burners since they can be operated with lower excess air due to better mixing accomplished by high pressure secondary fuel injection.

Selective Catalytic Reduction (SCR)

SCR systems use a catalyst preceded by ammonia (NH_3) injection which selectively reduces NO_x to N_2 and water vapor. The catalytic reaction between NH_3 and NO_x is temperature-dependent with an operating range between 450 and 750°F. NO_x reduction capabilities of 70-90 percent are typical depending on the baseline NOx concentration, catalyst condition, and amount of NH_3 injected. As with any catalytic system, degradation of the catalyst occurs with time, requiring periodic replacement or regeneration. SCR systems, although originally installed only in natural gas-fired facilities in Japan and Germany, can now be designed for most gas/oil-fired utility boiler retrofit applications provided there is sufficient space in the appropriate part of the convection section of the furnace. Retrofit costs can be prohibitive when modifications to boiler ducts and other system components become extensive.

Selective Non-Catalytic Reduction (SNCR)

As the term implies, SNCR systems rely on chemical denitrification of flue gases without use of catalysts. Thus, SNCR systems provide the relative advantage of being free from time-dependent performance degradation and routine or periodic outages for replacement of system components. Either ammonia or urea is injected into the convection section between exchanger surfaces at a location where the temperature is at least 1,600°F and not more than 2,200°F. The process involves two primary reactions: NO_x with NH_3 to form N_2 and H_2O, and reaction of NH_3 with O_2 to form NO_x and H_2O. The first reaction is predominant at the lower end of the operating temperature range while the second reaction, undesirable as it is, dominates at the high end of the range.

The objective, naturally, is to operate the system at the optimum temperature resulting in minimal oxidation of NH_3 while at the same time limiting excess O_2 to the lowest acceptable level. To go to completion, the reactions require a minimum flue gas residence time at or near the optimum reaction temperature. This temperature/residence time "window" is sometimes difficult to maintain properly because of fluctuating boiler loads, varying flue gas temperatures and chemical injection control system capabilities. Excess NH_3 (also called "ammonia slip") may be emitted as a result of these

fluctuations. However, recent installations have shown that properly designed and controlled SNCR systems will operate consistently and reliably and at relatively low cost. SNCR NO_x reduction efficiencies ranging from 30 to 70 percent have been cited in the literature.

Other NOx Reduction Methods for Utility Boilers

Low to moderate NO_x reduction efficiencies (about 5 to 15 percent) may be realized from employing methods such as fuel denitrification, switching to a lower nitrogen fuel, or reducing the preheat temperature of combustion air. These methods have substantial economic penalties and have not been implemented to any significant extent thus far by the utility industry.

Gas Turbines

NO_x control technologies for gas turbines include diluent injection (water or steam), SCR and Dry Low NO_x combustors (DLN). Injecting water or steam into the combustion zone provides a heat sink thereby lowering combustion temperature. Catalytic combustion (not currently available) is an emerging gas turbine technology holding promise of achieving very low NO_x limits. Of these, only diluent injection would normally be considered for a turbine in peaking service with a very low capacity factor. Since FPL's gas turbines will be operated at 10% capacity factor or less, the impact of these units on the total NO_x emission problem was not considered high enough to require NO_x controls.

Control Technology Cost Analysis

The most recent comprehensive cost study of NO_x RACT technologies is the EPA/NESCAUM (ACUREX) study, Evaluation and Costing of NOx Controls for Existing Utility Boilers in the NESCAUM Region - EPA 453/R-92-010 (December 1992). This study was sponsored by the EPA's Office of Air Quality Planning and Standards, EPA's Office of Research and Development, and the Northeast States for Coordinated Air Use Management (NESCAUM). NESCAUM is an organization whose membership consists of the state air pollution control agencies for Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont. One of the stated purposes of NESCAUM is to provide a forum for discussion of common technical issues and to work toward greater consistency in review of air permits for facilities in the northeast region.

In March 1992, NESCAUM's Stationary Source Committee issued their recommendation on NO_x RACT for utility boilers in response to Sections 182(f) and 182(b)(2) of the Clean Air Act Amendments of 1990. The recommendations were based on the preliminary draft of the cost study prepared by Acurex Environmental Systems for NESCAUM and EPA. The utility industry, through the Electric Power Research Institute (EPRI), commented that the draft version did not properly articulate the bases for cost estimates. They also commented that the oil and gas boilers included in the Acurex study are not representative of the industry as a whole since many were designed for coal and later converted to oil and gas. Coal-designed furnaces, due to their larger volume, tend to generate less thermal NO_x as

a result of lower temperatures. As a result of the EPRI review, a number of changes were made with the final version being issued in December of 1992. EPRI still maintains that the final version should be carefuly scrutinized due to best cases being presented as typical of the industry.

Compared to the EPA/NESCAUM (ACUREX) study and other RACT technology cost estimates the Department is aware of, FPL's control technology cost estimates are very conservative. FPL's original cost estimates were thought to be high for those control technologies considered by them to be unproven, such as SNCR, but it was not known how conservative their estimates were until vendor quotes for similar facilities were obtained by the Department. As shown for the SNCR option below, the vendor quotes compare closely with the EPA/NESCAUM (ACUREX) study results, while FPL's estimates are considerably higher.

COST ESTIMATES FOR SNCR

Basis: 200 MW Boiler/Gas-Oil Wall-Fired/Uncontrolled 35-50% NO_x Reduction 70% Capacity Factor	FPL (Orig.)	FPL (Rev.)	EPA/NESCAUM (ACUREX)	VENDOR (NALCO)	VENDOR (EXXON)
CAPITAL COST ($/KW)	33	15	10	10	8
ANNUAL COST (MILL/KWH)	1.7	0.5	0.5	0.5	0.5
COST EFFECTIVENESS ($/TON)	6478	1245	813	841	732

Basis: 400 MW Boiler/Gas-Oil Wall-Fired/Uncontrolled 35-50% NO_x Reduction 70% Capacity Factor	FPL (Orig.)	FPL (Rev.)	EPA/NESCAUM (ACUREX)	VENDOR (NALCO)	VENDOR (EXXON)
CAPITAL COST ($/KW)	33	15	7	7	6
ANNUAL COST (MILL/KWH)	1.7	0.5	0.5	0.5	0.5
COST EFFECTIVENESS ($/TON)	3926	1245	722	747	652

Shown below is a comparison of FPL's original cost estimates for each control technology with those from the EPA/NESCAUM (ACUREX) study. The ratio of FPL's 200 MW capital cost estimates to the ACUREX figures varied from 0.6 for LNB to 9.4 for FGR, while the estimates for LNB+OFA were reasonably close. There was less variation between the annual cost figures. FPL's cost effectiveness estimates for FGR, SNCR and SCR were 5 to 15 times higher than the ACUREX costs. The ratio of FPL's 400 MW capital costs ranged from 0.4 for LNB to 7.0 for FGR, while annual costs had less variation. Cost effectiveness estimates by FPL for the 400 MW class were 2.6 to 6.7 times higher than ACUREX. It should be pointed out, however, that FPL's estimates are based on a capacity factor of 70% whereas a 40% capacity factor was used for the ACUREX study.

ORIGINAL FPL COST ESTIMATES - 200 MW

CONTROL OPTION	LNB	LNB+OFA	BOOS*	FGR	SNCR	SCR
LB NO_x/MMBTU (FROM/TO)	.40-.30	.40-.24	NA	.40-.22	.40-.26	.40-.12
CAPITAL COST ($/KW)	16.83	38.85	NA	94.38	32.75	92.30
ANNUAL COST(MILL/KWH@70%CF)	0.50	0.70	NA	2.90	1.70	5.70
COST EFFECTIVENESS ($/TON)	1810	4425	NA	10755	6477	21368

EPA/ACUREX COSTS - 200 MW GAS-OIL WALL-FIRED

CONTROL OPTION	LNB	LNB+OFA**	BOOS	FGR	SNCR	SCR
LB NO_x/MMBTU (FROM/TO)	.45-.30	.45-.25	.45-.35	.45-.30	.45-.25	.45-.15
CAPITAL COST ($/KW)	28.38	44.80	0.61	10.00	10.00	135.00
ANNUAL COST(MILL/KWH@40%CF)	1.26	2.41	0.19	0.50	0.87	7.38
COST EFFECTIVENESS ($/TON)	1570	2255	242	707	813	4612

ORIGINAL FPL COST ESTIMATES - 400 MW

CONTROL OPTION	LNB	LNB+OFA	BOOS*	FGR	SNCR	SCR
LB NO_x/MMBTU (FROM/TO)	.40-.30	.40-.24	NA	.40-.22	.40-.26	.40-.12
CAPITAL COST ($/KW)	9.15	20.30	NA	52.45	33.02	72.62
ANNUAL COST(MILL/KWH@70%CF)	0.30	0.70	NA	1.70	1.80	4.60
COST EFFECTIVENESS ($/TON)	598	1507	NA	3640	3926	9834

EPA/ACUREX COSTS - 400 MW GAS-OIL WALL-FIRED

CONTROL OPTION	LNB	LNB+OFA**	BOOS	FGR	SNCR	SCR
LB NO_x/MMBTU (FROM/TO)	.45-.30	.45-.25	.45-.35	.45-.30	.45-.25	.45-.15
CAPITAL COST ($/KW)	21.51	34.00	0.47	7.50	7.00	102.00
ANNUAL COST(MILL/KWH@40%CF)	0.95	1.86	0.17	0.38	0.77	6.05
COST EFFECTIVENESS ($/TON)	1187	1750	213	540	722	3780

* NA = Not Available according to FPL
** Factored to remove FGR from EPA/NESCAUM (ACUREX) Case 9 (LNB+FGR+OFA)

Another source of cost data is the EPRI NO_x Control Status Report which lists retrofit installations and control technology cost information. The following table from that report contains ranges for capital and annual costs and cost effectiveness showing lower costs in some cases than the ACUREX study. Since coal-fired boilers are included in the EPRI report, it covers a wider range of applications and is therefore less definitive for oil and gas-fired units.

Analysis of Low NOx Burner Test Data

In the Spring of 1992, FPL replaced all of the low excess air burners on the Port Everglades units (PPE-3 and -4) with Low NO_x burners manufactured by Todd Combustion. Tabulated below are results from the Todd burner performance tests for PPE-3 and -4 conducted in September 1992. These results were published in a paper (co-authored by FP&L and Todd) presented at the December 1992 Power Generation Conference in Orlando. Also shown are results of tests conducted by FPL in March 1991 on the Low Excess Air burners prior to their replacement in 1992. The data indicate that NO_x emissions were about 25% lower following the Low NO_x burner installations.

Port Everglades (PPE - 3)	Low Excess Air Burners		Low NO_x Burners	
	Oil	Gas	Oil	Gas
Date of Test	3-91	3-91	9-92	9-92
Fuel Input (MMBTU/HR)	3,393	3,510	3,535	3,656*
Steam Output (MMLB/HR)	2.50	2.49	2.46	2.46
BTU Input/LB Steam Output	1,357	1,410	1,437	1,486
MW Gross	376	376	374	375
% Load (MW Gross/MW Rating)	94	94	94	94
NO_x ppm	578	426	418	338
LB NO_x/MMBTU	0.74	0.52	0.53	0.40
CO ppm	144	161	1.4	1.7
CO_2 %	14.1	10.2	14.5**	10.6**
O_2 %	2.8	3.2	2.8	2.6
Flue Gas Temp (^oF)	674	679	-	-

Port Everglades (PPE - 4)	Low Excess Air Burners		Low NO_x Burners	
	Oil	Gas	Oil	Gas
Date of Test	3-91	3-91	9-92	9-92
Fuel Input (MMBTU/HR)	3,488	3,459	3,562	3,562*
Steam Output (MMLB/HR)	2.46	2.43	2.50	2.48
BTU Input/LB Steam Output	1,418	1,424	1,425	1,436
MW Gross	378	376	375	377
% Load (MW Gross/MW Rating)	95	94	94	94
NO_x ppm	635	489	417	325
LB NO_x/MMBTU	0.79	0.57	0.51	0.38
CO ppm	127	270	2.6	6.9
CO_2 %	14.3	10.8	14.6**	11.0**
O_2 %	2.6	2.3	2.3	2.1
Flue Gas Temp (^oF)	677	678	-	-

* Fuel rate not reported. This estimate is based on ratios of BTU/MW for gas vs. oil firing.
** CO_2 not reported. This estimate is based on a test done in November, 1992.

As indicated in the footnote above, post-retrofit fuel firing rates during gas operation were not reported in the paper presented at the 1992 Power Generation Conference. The oil firing rates shown above, originally published in the 1992 paper, were pulled out of the updated version of the paper recently presented at the May 1993 Joint Symposium on Stationary Combustion NO_x Control (co-sponsored by EPA and EPRI), and no mention was made of pre- vs. post-retrofit energy consumption. This makes it very difficult to analyze the energy penalty. The magnitude of the Low NO_x burner energy penalty appears to vary from less than 1% up to about 6% for the PPE-3 test during oil firing (1,437 vs. 1,357 BTU Input/LB Steam Output). In contrast, the PPE-4 oil testing indicated only slightly higher fuel consumption per pound of steam. It is possible that the steam production during the PPE-4 baseline tests may have been higher than recorded. The MW outputs for the PPE-4 tests correlate very well while the baseline steam ouputs seem low for essentially the same MW.

If significant (say, over 1%) an energy penalty would obviously become a factor in the determination of RACT. FPL staff insist that there is little or no energy penalty associated with the Low NO_x burners based on their monitoring and calculations. They point to their analyses of BTU/KWH showing essentially the same overall efficiency (within 1%), although they recognized some efficiency loss by including a penalty of 10 BTU/KWH (about 0.1%) in their Low NO_x burner cost analysis. It is difficult to draw any conclusions about the magnitude of the energy penalty on the basis of the available test data from the FP&L units. Data from other sources showing energy consumption per MW for Low NO_x burners are limited since NO_x emissions have been the focus of testing rather than energy consumption. A study done for EPA consisting of 428 tests on 8 wall-fired gas/oil boilers (180 MW, 240 MW and 350 MW) showed up to 3.8 % higher fuel consumption per MW for two-stage combustion using NO_x ports, however, this study did not involve Low-NO_x burners (Analysis of Test Data for NOx Control in Gas- and Oil-fired Utility Boilers, EPA 650/2-75-012). The EPA/NESCAUM (ACUREX) study found that combustion efficiency for some oil-fired boilers decreased markedly due to use of Low NO_x burners and staged firing to accomplish high NO_x reductions.

Although the magnitude of an energy penalty cannot be agreed on, it is clear that in every test in both the FP&L data set and the referenced EPA study, staged combustion fuel consumption per MW is higher relative to stoichiometric combustion with low excess air burners and no air or fuel staging in the boiler. Although fuel consumption and boiler production levels are control room readings and therefore subject to error, the data are suitable for making relative comparisons. Consequently, it appears that an energy penalty of between 0.5% to 3% or higher may be attributed to combustion staging whether the staging occurs in the burner or in the boiler. The EPA/NESCAUM (ACUREX) study concluded that the magnitude of the energy penalty varies widely with boiler type and that a large part of the penalty may be attributed to fuel/air imbalances.

New England Power's (NEPCO) Salem Harbor Unit No. 4 (oil-fired) experienced high NO_x emissions and carbon loss (unburned fuel) after installing Low NO_x burners. According to NEPCO, the Low NO_x burners were based on a modification of the original low excess air design. They failed to achieve targeted performance and have required extensive staging at the expense of efficiency to meet the NO_x limit. Problems include vibration and limited unit capacity. Obtaining the proper air/fuel ratio has been difficult. The high carbon loss tends to substantiate the data discussed above in regard to lower efficiency of staged combustion for some designs of Low NO_x burners.

All of the control technology options have some drawbacks or penalties. Most are thought to have energy losses of less than 1%. However, if an energy penalty is above 1%, the additional quantities of NO_x and other pollutants emitted from combustion of the extra fuel, as well as the cost of the extra fuel, would be a determining factor in the selection of control options. Unfortunatelty, not enough data are available to resolve the energy penalty issue.

Air Quality Issues

The Department's 1991 Air Quality Report states that there were no valid maximum daily ozone concentrations in excess of the 0.12 ppm ambient standard during 1991. The average number of expected ozone exceedances per year for the period 1989-1991 was less than one for Dade County and zero for Broward and Palm Beach Counties. No upward trend has been recorded at monitoring sites in these counties during the ten year period 1982-1991, while two monitors in Dade indicated a downward trend for the five year period 1987-1991.

The Clean Air Act Amendments of 1990 focused on NO_x and VOC equally as ozone precursors. It has long been known that nitric oxide (NO) and nitrogen dioxide (NO_2) play an important role in atmospheric ozone formation, NO being a precursor for formation of NO_2. Therefore, in analyzing ozone trends in the Broward, Dade and Palm Beach nonattainment counties, NO_2 concentrations are of interest as well as ozone exceedances. The 1991 Air Quality Report lists these 1991 annual arithmetic mean values for NO_2: Broward - 17 micrograms/m^3; Dade - 28 micrograms/m^3; Palm Beach - 22 micrograms/m^3. The ambient air quality standard for NO_2 is 100 micrograms/m^3. Although the state does not have sufficient NO_2 monitoring data for a long term trend analysis, results from two monitors in Dade County indicate a downward trend for NO_2 from 1987 through 1991.

Efforts are underway to redesignate these counties as air quality maintenance areas.

RACT Determined by the Department

The Department's RACT determination is based on a degree of reduction of NO_x and VOC emissions which the Department, on a case by case basis, taking into account any applicable Control Techniques Guidelines (CTG) or Alternative Control Techniques (ACT) Document published by the Environmental Protection Agency (EPA), RACT emission limits or control technology required by other states, as well as the technological and economic feasibility of various emission limiting standards or control technology alternatives, and other relevant information, determined is achievable through application of reasonably available control technology (RACT). The EPA defines RACT as the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility. RACT may require technology that has been applied to similar but not necessarily identical source categories.

Shown below are the unit-specific NO_x emission limits originally proposed by the Department and those originally proposed by FPL with 1990 levels established as the baseline for reductions. At the bottom of the table the system-wide values for both fuels are shown for RACT affected sources along with the annual tonnage for Non-RACT sources.

		LB NOx/MMBTU								NOx Emissions (TPY)				
		Baseline		FPL Proposed			RACT Limits			Base*	FPL**		RACT	
Plant	MW	Gas	Oil	Gas	Oil	%Red	Gas	Oil	%Red	1990	Prop.	%		%
PPE-1	220	.22	.40	.20	.36	10	.20	.36	10	1529	1202	21	1202	21
PPE-2	220	.22	.40	.20	.36	10	.20	.36	10	1529	1202	21	1202	21
PPE-3	400	.52	.74	.41	.58	21	.40	.53	22	5760	4619	20	4400	24
PPE-4	400	.52	.74	.41	.58	21	.40	.53	22	5760	4619	20	4400	24
PTF-1	400	.56	.78	.42	.59	25	.40	.53	30	4895	2738	44	2487	49
PTF-2	400	.56	.78	.42	.59	25	.40	.53	30	4895	2738	44	2487	49
PRV-3	300	.72	.92	.54	.69	25	.50^	.62^	31	4172	3763	10	3458	17
PRV-4	300	.72	.92	.54	.69	25	.50^	.62^	31	4172	3763	10	3458	17
PCU-5	75	.14	-	.20	-	-43	.20	-	0	79	42	47	42	47
PCU-6	160	.16	-	.20	-	-25	.20	-	0	54	219	-	219	-
PPE-1-12	486	.43	.82	.50	.90	0	.50	.90	0	253	130	49	130	49
PFL-1-12	486	.43	.82	.50	.90	0	.50	.90	0	376	258	31	258	31
PFL-13-24	486	.43	.82	.50	.90	0	.50	.90	0	376	258	31	258	31
Total (RACT)		<.60>		<.47>		<22>	<.44>		<29>	33850	25551	25	24001	29
PFL-4 & 5 (Non-RACT)										1375	3977	-	3977	-
Total (RACT + Non-RACT)										35225	29528	16	27978	21

<> Indicates "system-wide" or "area-wide" average (average for all units).
* Average TPY NO_x emissions for similar units. Actual % will vary with unit load factors.
** If the Non-RACT sources (Lauderdale Units 4 & 5) are considered separately, FPL is proposing a 4.2% drop in fuel consumption (1990-112,776,900 MMBTU vs. 1995-2000 - 108,038,400 MMBTU) for RACT sources. FPL's application refers to a 25% decrease in RACT source NO_x emissions with a 16% overall decrease (RACT + Non-RACT) while experiencing a 34%

increase in fuel demand (1990 vs. 1995-2000), but this includes the Non-RACT units. When the reduction in RACT-source fuel demand is considered, the actual % reduction resulting from RACT limits alone would be approximately 22% vs. 25% and 26% vs. 29%.
^ Interim limits for the Riveria units. As discussed in the section below, FPL's counter-proposed limits of 0.50 (gas) and 0.62 (oil) will be in effect for a period of 18 months following completion of the Low NO_x burner installation. These limits will be subject to reduction by the Department following completion of an 18-month test program by FPL on the Riviera Low NO_x burners. The test program will be designed to achieve a 40% reduction in NO_x emissions from the 1990 baseline using staged firing and/or other measures.

RACT Determination Rationale

The Department's proposed NO_x emission limits are based on information obtained from the following sources in addition to FPL's application:

- EPA's General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990.
- EPA's NO_x Supplement to the General Preamble.
- RACT emission limits proposed by STAPPA/ALAPCO and NESCAUM.
- RACT emission limits proposed by States.
- Control technology documents, technical reports and papers published by EPA and industry.
- Communications with control technology vendors and users.

The Department agrees with FPL's proposed limits for the 220 MW Port Everglades Steam Generating Units (PPE-1 and -2), the Cutler Steam Generating Units (PCU-5 and -6), and the Port Everglades and Lauderdale gas turbines. The Department's proposed limits for the 400 MW units at Port Everglades and Turkey Point (PPE-3, PPE-4, PTF-1, PTF-2) are slightly more stringent than proposed by FPL and are based on Low NOx burner test data for PPE-3 and -4.

The Department differs with FPL's original proposal for the 300 MW Riviera units (PRV-3 and -4). Control options capable of achieving a 40% vs. 25% reduction in NO_x emissions for these high emitting units include Low NO_x burners in combination with overfire air; SNCR; Burners Out of Service (off-stoichiometric) or staged combustion methods. The fact that these units have a large number of burners (24) makes them suitable for the staged firing approach. FPL will carry out an 18-month test program designed to achieve the targeted 40% reduction for the Riviera units through staged firing of Low NO_x burners or other methods. Until the test program is completed, interim NO_x emission limits of 0.50 LB NO_x/MMBTU (Gas) and 0.62 LB NO_x/MMBTU (Oil) will be in effect. Upon conclusion of the test program, the Department will re-evaluate NO_x emission limits for PRV-3 and -4.

For Additional Details Please Contact:

John Reynolds, Permit Engineer
Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended by:

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

July 26, 1993
Date

Approved by:

Howard L. Rhodes, P.E., Director
Division of Air Resources Management

7/30/93
Date

Appendix H-1, Permit History/ID Number Changes

Florida Power & Light Company
Riviera Beach

[DRAFT/PROPOSED/FINAL]Permit No.: 0990042-001-AV
Facility ID No.: 0990042

Permit History (for tracking purposes):

E.U. ID No	Description	Permit No.	Issue Date	Expiration Date	Extended Date	Revised Date(s)
-003	Unit #3 Boiler Stack	AO50-206721	03/06/92	03/15/97		
-004	Steam Generator #4"	AO50-206722	03/06/92	03/15/97		

(if applicable) ID Number Changes (for tracking purposes):

From: **Facility ID No.:** 50PMB500042

To: **Facility ID No.:** 0990042

Notes:
1 - AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.
2 - AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.
{Rule 62-213.420(1)(b)2., F.A.C., effective 03/20/96, allows Title V Sources to operate under existing valid permits}

File Copy

Florida Department of
Environmental Protection

Memorandum

TO: Isidore Goldman, SED

FROM: Bruce Mitchell

DATE: January 22, 1997

SUBJECT: Completeness Review of an Application Package for a Title V Operation Permit
Florida Power & Light, Riviera Beach: 0990042-001-AV

The Title V operating permit application package for the referenced facility is being processed in Tallahassee. The application was previously forwarded to your office for your files and future reference. Please have someone review the package for completeness and respond in writing by February 24, 1997, if you have any comments. Otherwise, no response is required. If there are any questions, please call the project engineer, Susan C. DeVore, at 904/488-1344 or SC:278-1344. It is very important to verify the compliance statement regarding the facility. Since we do not have a readily effective means of determining compliance at the time the application was submitted, please advise if you know of any emissions unit(s) that were not in compliance at that time and provide supporting information. Also, do not write on the documents.

If there are any questions regarding this request, please call me or Scott Sheplak at the above number(s).

RBM/bjb

cc: Joe Kahn

1/22/97 File
Reading File
Susan DeVore

Florida Department of Environmental Regulation

Southeast District • 1900 S. Congress Ave., Suite A • West Palm Beach, Florida 33406

Lawton Chiles, Governor

Telephone: 407/433-2650
Fax: 407/433-2666

Carol M. Browner, Secretary

MAR 6 1992

FILE

RECEIVED
JUN 20 1996
BUREAU OF
AIR REGULATION

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT ISSUANCE

CERTIFIED MAIL P 818 784 121

In the Matter of an Application for Permit by:
Mr. M. A. Smith
Manager, Air & Water Permitting Programs
Florida Power & Light
P. O. Box 078768
West Palm Beach, Florida 33407

DER File No. AO 50-206721
Palm Beach County

Enclosed is Permit Number AO 50-206721 to operate an air pollution source issued pursuant to Section 403.087, Florida Statutes.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of receipt of this Permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, F.A.C. Upon timely

DER Permit No. AO 50-206721

filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

In addition, please be advised that some processes generate hazardous wastes. Please consult 40 C.F.R. Parts 260-271 and Chapter 17-730, F.A.C. for specific rules and regulations applicable to hazardous waste handlers. Attached for your use is a document entitled "Highlights of Hazardous Waste Regulations" which outlines typical compliance items applicable to various hazardous waste generators/facilities.

Executed in West Palm Beach, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Donald B. White

Donald B. White
Acting Director of District Management
1900 South Congress Ave., Suite A
West Palm Beach, FL 33406
407/433-2650

DBW:SSB/k67

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed by certified mail before the close of business on MAR 6 1992 to the listed persons.

Clerk Stamp

FILING AND
ACKNOWLEDGMENT FILED, on this
date, pursuant to §120.52(11),
Florida Statutes, with the
designated Department Clerk,
receipt of which is hereby
acknowledged.

Phyllis D. Korn (Clerk) MAR 6 1992 (Date)

Copies furnished to:

Palm Beach County Public Health Unit

Florida Department of Environmental Regulation

Southeast District • 1900 S. Congress Ave., Suite A • West Palm Beach, Florida 33406

Lawton Chiles, Governor

Telephone: 407/433-2650
Fax: 407/433-2666

Carol M. Browner, Secretary

PERMITTEE:
Mr. M. A. Smith
Manager Air & Water Permitting Programs
Florida Power & Light Company
P. O. Box 078768
West Palm Beach, Florida 33407

I.D. NUMBER: 50/PMB/50/0042/03
PERMIT/CERTIFICATION NUMBER: AO 50-206721*
DATE OF ISSUE: MAR 6 1992
EXPIRATION DATE: March 15, 1997
COUNTY: Palm Beach
LATITUDE/LONGITUDE: 26°45'55"N/80°03'09"W
UTM: Zone 17; 594.249 Km. E; 2960.632 Km. N
PROJECT: Florida Power & Light Company
Unit 3 - Riviera Beach

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule 17-2, and in conformance with all existing regulations of the Florida Department of Environmental Regulation. 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 Department and made a part hereof and specifically described as follows:

OPERATE: An air pollution source consisting of a 300 MW class (315 MW gross capacity) steam generating (Unit No. 3) unit burning a variable combination of natural gas, used oil, No. 6 fuel oil, No. 2 fuel oil, propane and expired fuel oil samples from FPL's Central laboratory discharging pollutants through a stack 298 feet above ground level. The unit is equipped with low excess air burners and Research-Cotrell multiple cyclones with reinjectors. Visible emissions are monitored by a transmissometer in the stack.

IN ACCORDANCE WITH: Application for Renewal of Permit to Operate Air Pollution Sources received January 7, 1992, letters dated June 17 and June 22, 1987, Final Order dated April 25, 1984, letter clarifying the order dated May 7, 1984 and the original Application to Operate dated February 23, 1971 as modified by Applications for Renewal dated July 10, 1979 and September 10, 1981 (none are attached).

LOCATED AT: 200-300 Broadway, Riviera Beach, Palm Beach County, Florida.

TO SERVE: An electric service facility (SIC # 4911).

SUBJECT TO: General Conditions 1-14. and Specific Conditions 1-9.

* This permit is a renewal of AO 50-128936 issued July 30, 1987.

DER Form 17-1.201(5)
Effective November 30, 1982

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

   (a) Have access to and copy any records that must be kept under the conditions of the permit;

   (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

   (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in the permit, the permittee shall immediately notify and provide the Department with the following information:

   (a) A description of and cause of noncompliance; and

   (b) The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

GENERAL CONDITIONS:

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department, may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules; except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rule 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following :

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically, unless otherwise stipulated by the Department.

(b) The permittee shall hold at the facility or other location designated by this permit, records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

PERMITTEE:
Mr. M. A. Smith
Florida Power & Light
West Palm Beach, Florida

I.D. NUMBER: 50/PMB/50/0042/03
PERMIT/CERTIFICATION NUMBER: AO 50-206721
DATE OF ISSUE: MAR 6 1992
EXPIRATION DATE: March 15, 1997

SPECIFIC CONDITIONS:

1. **Heat Input Rate:**

The permitted heat input rates for this source are 3,050 MMBtu/hr on fuel oil and 3,260 MMBtu/hr on natural gas.

2. **Permitted Fuels:**

This source shall be fired with a variable combination of No. 6 residual oil, natural gas, No. 2 fuel oil, propane gas, used oil from FPL operations, and expired fuel oil samples from FPL's Central Laboratory.

3. **Source Emission Limiting Standards and Compliance Testing Requirements:**

POLLUTANT	EMISSION[1] LIMITING STDS	TESTING FREQUENCY[2]			TEST[3] METHOD
		ANNUAL	QUARTERLY	OTHER	
Particulate Matter					
• Steady-State	0.1 lb/MMBtu	X	---	---	EPA Method 5 or 17[5]
• Sootblowing	0.3 lb/MMBtu (Max. 3 hrs)	X	---	---	EPA Method 5 or 17[5]
• Load Changing	0.3 lb/MMBtu (Max. 3 hrs)	---	---	---	---
Sulfur Dioxide	2.75 lb/MMBtu	---	---	X	Monthly Fuel Analysis[6]
Visible Emissions					
• Steady-State	40% Opacity	X[4]	---	---	DER Method 9[7]
• Sootblowing	60% Opacity for up to 3 hrs in 24 hrs with up to four 6-minute periods of up to 100% if unit has an operational opacity CEM	X	---	---	DER Method 9[7]
• Loading changing	60% Opacity for up to 3 hrs in 24 hrs with up to four 6-minute periods of up to 100% if unit has an operational opacity CEM	---	---	---	---

SPECIFIC CONDITIONS:

Footnotes

(1) FAC 17-2.250(3) and FAC 17-2.600(5)(a).
(2) FAC 17-2.700(2).
(3) FAC 17-2.700(1)(d).
(4) This source has been authorized by Order of the Department's Secretary dated April 24, 1984 to test particulate matter emissions and visible emissions annually with a 40% opacity limit.
(5) EPA Method 17 may be used only if the stack gas exit temperature is less than 375°F.
(6) Sulfur content shall be verified by submittal of monthly fuel analyses reports. Stack testing for SO_2 using EPA Method 6 is required if the sulfur content of the fuel exceeds 2.5% by weight.
(7) Actual transmissometer data during steady state and sootblowing particulate matter emissions testing is acceptable in lieu of DER Method 9 testing.

4. Compliance Testing Related Requirements:

(a) Notification - FAC 17-2.700(2)(a)9

Notification of scheduled compliance test dates shall be given to the Department's Southeast District Office and the Palm Beach County Public Health Unit at least 15 days prior to testing unless otherwise agreed to by the Department.

(b) Conditions

Compliance testing of emissions should be conducted with the source firing No. 6 fuel oil or a combination of fuel oil and natural gas not to exceed an equivalent of 2.5% sulfur content and operating within 10 percent of its rated capacity. Testing may be conducted with the source operating at less than 90% of rated capacity; however, if so, subsequent source operation is limited to up to 110 percent of the average test load. Once the unit is so limited, then operation at higher capacities is allowed for a cumulative total of no more than fifteen days for purposes of additional compliance testing to regain rated capacity in the permit, with prior notification to the Department.

A particulate matter emissions stack test must be performed to demonstrate compliance with the particulate matter emission limitation within sixty (60) days of the monthly fuel analysis being reported if the sulfur content of the fuel burned is increased by 0.5 percentage points or more from that used during the previous stack test.

(c) Stack Sampling Facility - FAC 17-2.700(4):

The stack sampling facility must comply with Rule 17-2.700(4), FAC.

(d) Report Submittal - FAC 17-2.700(7)

A copy of the test results shall be submitted to the Department's Southeast District Office and Palm Beach County Public Health Unit within 45 days after the last test run is completed.

5. Annual Operations Report (AOR):

On or before March 1 of each calendar year, a completed DER Form 17-1.202(6), Annual Operation Report Form for Air Emissions Sources, listing emissions for the preceding calendar year, shall be submitted to the Department's Southeast District Office and the Palm Beach County Public Health Unit.

PERMITTEE:
Mr. M. A. Smith
Florida Power & Light
West Palm Beach, Florida

I.D. NUMBER: 50/PMB/50/0042/03
PERMIT/CERTIFICATION NUMBER: AO 50-206721
DATE OF ISSUE: MAR 6 1992
EXPIRATION DATE: March 15, 1997

SPECIFIC CONDITIONS:

6. Excess Emissions:

(a) Events - FAC 17-2.250

Excess emissions resulting from start-up or shut-down shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions is minimized.

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 is minimized but in no case exceeds two hours in any 24-hour period unless specifically authorized by the Department for longer duration.

(b) Notification - FAC 17-4.130.

In the event the permittee is temporarily unable to comply with any of the conditions of the permit, the permittee shall immediately notify the Department's Southeast District Office and the Palm Beach County Public Health Unit. Notification shall be conducted in accordance with General Condition 8 of this permit.

(c) Report Submittal:

In addition to the requirements of General Condition 8 of this permit, a written quarterly report shall be submitted to the Department's Southeast District Office and the Palm Beach County Public Health Unit of all opacity exceedances of emission limitations specified in FAC 17-2.250(3) and 17-2.600(5)(a)1. The report shall state the cause, period of non-compliance, steps taken for corrective action, and steps taken to prevent recurrence. If compliance cannot be determined due to opacity monitor malfunction or for any other reason, the report shall state the cause, duration and action taken. The Department shall also be notified when there are no exceedances for a quarter. All recorded data shall be maintained on file by the permittee for no less than two years and made available to the Department upon request.

7. Used Oil Handling:

Burning of used oil shall be permitted under the following conditions;

(a) The used oil fuel shall originate from FPL operations and shall meet the EPA specification levels under 40 CFR 266.40(e). Furthermore, the used oil shall be burned in accordance with the Department's Policy Memorandum of January 5, 1987.

(b) Each batch of used oil to be burned shall be sampled and analyzed for: arsenic, chromium, cadmium, total halogens, lead, and flashpoint using EPA/DER or ASTM approved methods. Split samples of the used oil shall be retained for three (3) months after analysis for further testing if necessary.

(c) Results of used oil sampling and analysis performed pursuant to Specific Condition 7(b) shall be retained by the permittee for at least three (3) years and made available for inspection by the Department upon request.

(d) An estimate of the total quantity of used oil burned during the applicable calendar year shall be included in the Annual Operation Report (AOR) for Air Emissions Sources. Also, the permittee shall submit with the AOR a summary of the range of values for each constituent analyzed pursuant to Specific Condition 7(b).

PERMITTEE:
Mr. M. A. Smith
Florida Power & Light
West Palm Beach, Florida

I.D. NUMBER: 50/PMB/50/0042/03
PERMIT/CERTIFICATION NUMBER: AO 50-206721
DATE OF ISSUE: MAR 6 1992
EXPIRATION DATE: March 15, 1997

SPECIFIC CONDITIONS:

8. Disposal of Expired Fuel Oil Samples:

The burning of Nalgene bottles made from high density polyethelene (HDPE) containing expired fuel oil samples from FPL facilities and retained after analysis by FPL's Central Laboratory shall be permitted under the following conditions:

(a) The total annual amount of expired fuel oil samples burned shall not exceed 2.0 barrels of fuel oil.

(b) The total annual amount of sample bottle material (HDPE) shall not exceed 80 pounds.

(c) An estimate of the total quantities of expired fuel oil samples and HDPE burned during the applicable calendar year shall be included in the Annual Operation Report (AOR) for Air Emissions Sources.

9. The permittee shall be aware of and operate under the attached "General Permit Conditions #1 thru #14." General Permit Conditions are binding upon the permittee and enforceable pursuant to Chapter 403 of the Florida Statutes.

Issued this 6th day of March, 1992

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Donald B. White

Donald B. White
Acting Director of District Management

Palm Beach County Public Health Unit

FILE

Florida Department of Environmental Regulation

Southeast District • 1900 S. Congress Ave., Suite A • West Palm Beach, Florida 33406

Lawton Chiles, Governor | Telephone: 407/433-2650 Fax: 407/433-2666 | Carol M. Browner, Secretary

MAR 6 1992

RECEIVED

JUN 20 1996

BUREAU OF AIR REGULATION

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT ISSUANCE

CERTIFIED MAIL P 818 794 120

In the Matter of an Application for Permit by:
Mr. M. A. Smith
Manager, Air & Water Permitting Programs
Florida Power & Light
P. O. Box 078768
West Palm Beach, Florida 33407

DER File No. AO 50-206722
Palm Beach County

Enclosed is Permit Number AO 50-206722 to operate an air pollution source issued pursuant to Section 403.087, Florida Statutes.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of receipt of this Permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with

DER Permit No. AO 50-206722

the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

In addition, please be advised that some processes generate hazardous wastes. Please consult 40 C.F.R. Parts 260-271 and Chapter 17-730, F.A.C. for specific rules and regulations applicable to hazardous waste handlers. Attached for your use is a document entitled "Highlights of Hazardous Waste Regulations" which outlines typical compliance items applicable to various hazardous waste generators/facilities.

Executed in West Palm Beach, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Donald B. White

Donald B. White
Acting Director of District Management
1900 South Congress Ave., Suite A
West Palm Beach, FL 33406
407/433-2650

DBW:SSB/k67

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed by certified mail before the close of business on MAR 6 1992 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Phyllis Kern (Clerk) MAR 6 1992 (Date)

Copies furnished to:

Palm Beach County Public Health Unit

Florida Department of Environmental Regulation

Southeast District • 1900 S. Congress Ave., Suite A • West Palm Beach, Florida 33406

Lawton Chiles, Governor

Telephone: 407/433-2650
Fax: 407/433-2666

Carol M. Browner, Secretary

PERMITTEE:
Mr. M. A. Smith
Manager Air & Water Permitting Programs
Florida Power & Light Company
P. O. Box 078768
West Palm Beach, Florida 33407

I.D. NUMBER: 50/PMB/50/0042/04
PERMIT/CERTIFICATION NUMBER: AO 50-206722*
DATE OF ISSUE: MAR 6 1992
EXPIRATION DATE: March 15, 1997
COUNTY: Palm Beach
LATITUDE/LONGITUDE: 26°45'55"N/80°03'09"W
UTM: Zone 17; 594.249 Km. E; 2960.632 Km. N
PROJECT: Florida Power & Light Company
Unit 4 - Riviera Beach

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule 17-2, and in conformance with all existing regulations of the Florida Department of Environmental Regulation. 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 Department and made a part hereof and specifically described as follows:

OPERATE: An air pollution source consisting of a 300 MW class (315 MW gross capacity) steam generating (Unit No. 4) unit burning a variable combination of natural gas, used oil, No. 6 fuel oil, No. 2 fuel oil, propane and expired fuel oil samples from FPL's Central laboratory discharging pollutants through a stack 298 feet above ground level. The unit is equipped with low excess air burners and Research-Cotrell multiple cyclones with reinjectors. Visible emissions are monitored by a transmissometer in the stack.

IN ACCORDANCE WITH: Application for Renewal of Permit to Operate Air Pollution Sources received January 7, 1992, letters dated June 17 and June 27, 1987, Final Order dated April 25, 1984, letter clarifying the order dated May 7, 1984 and the original Application to Operate dated February 23, 1971 as modified by Applications for Renewal received June 1, 1979 and September 16, 1981 (none are attached).

LOCATED AT: 200-300 Broadway, Riviera Beach, Palm Beach County, Florida.

TO SERVE: An electric service Utility (SIC #-4911).

SUBJECT TO: General Conditions 1-14. and Specific Conditions 1-9.

* This permit is a renewal of AO 50-128936 issued July 30, 1987.

DER Form 17-1.201(5)
Effective November 30, 1982

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

   (a) Have access to and copy any records that must be kept under the conditions of the permit;

   (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

   (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in the permit, the permittee shall immediately notify and provide the Department with the following information:

   (a) A description of and cause of noncompliance; and

   (b) The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

GENERAL CONDITIONS:

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department, may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rule 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following :

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically, unless otherwise stipulated by the Department.

(b) The permittee shall hold at the facility or other location designated by this permit, records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

PERMITTEE:
Mr. M. A. Smith
Florida Power & Light
West Palm Beach, Florida

I.D. NUMBER: 50/PMB/50/0042/04
PERMIT/CERTIFICATION NUMBER: AO 50-206722
DATE OF ISSUE: MAR 6 1992
EXPIRATION DATE: March 15, 1997

SPECIFIC CONDITIONS:

1. **Heat Input Rate:**

The permitted heat input rates for this source are 3,050 MMBtu/hr on fuel oil and 3,260 MMBtu/hr on natural gas.

2. **Permitted Fuels:**

This source shall be fired with a variable combination of No. 6 residual oil, natural gas, No. 2 fuel oil, propane gas, used oil from FPL operations, and expired fuel oil samples from FPL's Central Laboratory.

3. **Source Emission Limiting Standards and Compliance Testing Requirements:**

POLLUTANT	EMISSION[1] LIMITING STDS	TESTING FREQUENCY[2]			TEST[3] METHOD
		ANNUAL	QUARTERLY	OTHER	
Particulate Matter					
• Steady-State	0.1 lb/MMBtu	X	---	---	EPA Method 5 or 17[5]
• Sootblowing	0.3 lb/MMBtu (Max. 3 hrs)	X	---	---	EPA Method 5 or 17[5]
• Load Changing	0.3 lb/MMBtu (Max. 3 hrs)	---	---	---	---
Sulfur Dioxide	2.75 lb/MMBtu	---	---	X	Monthly Fuel Analysis[6]
Visible Emissions					
• Steady-State	40% Opacity	X[4]	---	---	DER Method 9[7]
• Sootblowing	60% Opacity for up to 3 hrs in 24 hrs with up to four 6-minute periods of up to 100% if unit has an operational opacity CEM.	X	---	---	DER Method 9[7]
• Loading changing	60% Opacity for up to 3 hrs in 24 hrs with up to four 6-minute periods of up to 100% if unit has an operational opacity CEM.	---	---	---	---

PERMITTEE:
Mr. M. A. Smith
Florida Power & Light
West Palm Beach, Florida

I.D. NUMBER: 50/PMB/50/0042/04
PERMIT/CERTIFICATION NUMBER: AO 50-206722
DATE OF ISSUE: MAR 6 1992
EXPIRATION DATE: March 15, 1997

SPECIFIC CONDITIONS:

Footnotes

(1) FAC 17-2.250(3) and FAC 17-2.600(5)(a).
(2) FAC 17-2.700(2).
(3) FAC 17-2.700(1)(d).
(4) This source has been authorized by Order of the Department's Secretary dated April 24, 1984 to test particulate matter emissions and visible emissions annually with a 40% opacity limit.
(5) EPA Method 17 may be used only if the stack gas exit temperature is less than 375°F.
(6) Sulfur content shall be verified by submittal of monthly fuel analyses reports. Stack testing for SO_2 using EPA Method 6 is required if the sulfur content of the fuel exceeds 2.5% by weight.
(7) Actual transmissometer data during steady state and sootblowing particulate matter emissions testing is acceptable in lieu of DER Method 9 testing.

4. Compliance Testing Related Requirements:

(a) Notification - FAC 17-2.700(2)(a)9

Notification of scheduled compliance test dates shall be given to the Department's Southeast District Office and the Palm Beach County Public Health Unit at least 15 days prior to testing unless otherwise agreed to by the Department.

(b) Conditions

Compliance testing of emissions should be conducted with the source firing No. 6 fuel oil or a combination of fuel oil and natural gas not to exceed an equivalent of 2.5% sulfur content and operating within 10 percent of its rated capacity. Testing may be conducted with the source operating at less than 90% of rated capacity; however, if so, subsequent source operation is limited to up to 110 percent of the average test load. Once the unit is so limited, then operation at higher capacities is allowed for a cumulative total of no more than fifteen days for purposes of additional compliance testing to regain rated capacity in the permit, with prior notification to the Department.

A particulate matter emissions stack test must be performed to demonstrate compliance with the particulate matter emission limitation within sixty (60) days of the monthly fuel analysis being reported if the sulfur content of the fuel burned is increased by 0.5 percentage points or more from that used during the previous stack test.

(c) Stack Sampling Facility - FAC 17-2.700(4):

The stack sampling facility must comply with Rule 17-2.700(4), FAC.

(d) Report Submittal - FAC 17-2.700(7)

A copy of the test results shall be submitted to the Department's Southeast District Office and Palm Beach County Public Health Unit within 45 days after the last test run is completed.

5. Annual Operations Report (AOR):

On or before March 1 of each calendar year, a completed DER Form 17-1.202(6), Annual Operation Report Form for Air Emissions Sources, listing emissions for the preceding calendar year, shall be submitted to the Department's Southeast District Office and the Palm Beach County Public Health Unit.

SPECIFIC CONDITIONS:

6. Excess Emissions:

(a) Events - FAC 17-2.250

Excess emissions resulting from start-up or shut-down shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions is minimized.

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 is minimized but in no case exceeds two hours in any 24-hour period unless specifically authorized by the Department for longer duration.

(b) Notification - FAC 17-4.130.

In the event the permittee is temporarily unable to comply with any of the conditions of the permit, the permittee shall immediately notify the Department's Southeast District Office and the Palm Beach County Public Health Unit. Notification shall be conducted in accordance with General Condition 8 of this permit.

(c) Report Submittal:

In addition to the requirements of General Condition 8 of this permit, a written quarterly report shall be submitted to the Department's Southeast District Office and the Palm Beach County Public Health Unit of all opacity exceedances of emission limitations specified in FAC 17-2.250(3) and 17-2.600(5)(a)1. The report shall state the cause, period of non-compliance, steps taken for corrective action, and steps taken to prevent recurrence. If compliance cannot be determined due to opacity monitor malfunction or for any other reason, the report shall state the cause, duration and action taken. The Department shall also be notified when there are no exceedances for a quarter. All recorded data shall be maintained on file by the permittee for no less than two years and made available to the Department upon request.

7. Used Oil Handling:

Burning of used oil shall be permitted under the following conditions:

(a) The used oil fuel shall originate from FPL operations and shall meet the EPA specification levels under 40 CFR 266.40(e). Furthermore, the used oil shall be burned in accordance with the Department's Policy Memorandum of January 5, 1987.

(b) Each batch of used oil to be burned shall be sampled and analyzed for: arsenic, chromium, cadmium, total halogens, lead, and flashpoint using EPA/DER or ASTM approved methods. Split samples of the used oil shall be retained for three (3) months after analysis for further testing if necessary.

(c) Results of used oil sampling and analysis performed pursuant to Specific Condition 7(b) shall be retained by the permittee for at least three (3) years and made available for inspection by the Department upon request.

(d) An estimate of the total quantity of used oil burned during the applicable calendar year shall be included in the Annual Operation Report (AOR) for Air Emissions Sources. Also, the permittee shall submit with the AOR a summary of the range of values for each constituent analyzed pursuant to Specific Condition 7(b).

PERMITTEE:
Mr. M. A. Smith
Florida Power & Light
West Palm Beach, Florida

I.D. NUMBER: 50/PMB/50/0042/04
PERMIT/CERTIFICATION NUMBER: AO 50-206722
DATE OF ISSUE: MAR 6 1992
EXPIRATION DATE: March 15, 1997

SPECIFIC CONDITIONS:

8. Disposal of Expired Fuel Oil Samples:

The burning of Nalgene bottles made from high density polyethelene (HDPE) containing expired fuel oil samples from FPL facilities and retained after analysis by FPL's Central Laboratory shall be permitted under the following conditions:

(a) The total annual amount of expired fuel oil samples burned shall not exceed 2.0 barrels of fuel oil.

(b) The total annual amount of sample bottle material (HDPE) shall not exceed 80 pounds.

(c) An estimate of the total quantities of expired fuel oil samples and HDPE burned during the applicable calendar year shall be included in the Annual Operation Report (AOR) for Air Emissions Sources.

9. The permittee shall be aware of and operate under the attached "General Permit Conditions #1 thru #14." General Permit Conditions are binding upon the permittee and enforceable pursuant to Chapter 403 of the Florida Statutes.

Issued this 6th day of March, 1992

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Donald B. White
Donald B. White
Acting Director of District Management

Palm Beach County Public Health Unit

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW
ATLANTA, GEORGIA 30303-8909

MAR 16 1998

RECEIVED
MAR 25 1998
BUREAU OF
AIR REGULATION

4APT-ARB

C.H. Fancy, Chief
Bureau of Air Regulation
Division of Air Resources Management
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399

SUBJ: Proposed Title V Permits for Florida Power & Light

Dear Mr. Fancy:

This is in response to your letter dated March 10, 1998, regarding proposed changes to seven Florida Power & Light (FP&L) proposed title V permits. These proposed permits were the subject of the U.S. Environmental Protection Agency's (EPA) December 11, 1997, objection. EPA Region 4 has completed its review of the Florida Department of Environmental Protection's (FDEP) proposed changes to the FP&L permits (and the associated Statements of Basis). Based on our review, we have one remaining comment which is outlined below.

On Page 4, Statement of Basis revision for the Manatee, Martin, Port Everglades, Riviera, and Turkey Point Permits, in order to avoid misinterpretation, we recommend that the State revise the paragraph as follows:

> "These units are subject to a steady-state PM emission limit of 0.1 lb/mmBtu, ~~which is effectively equivalent to 0.149 lb/mmBtu because of rounding,~~ and 0.3 lb/mmBtu for soot blowing ~~which is equivalent to 0.349 lb/mmBtu~~." FPL has presented historical PM test results which show that the steady-state and soot blowing average results are less than ~~half the applicable effective standards~~ 0.075 lb/mmBtu. The Department has determined that sources with steady-state emissions less than ~~half of the effective standard~~ 0.075 lb/mmBtu shall test annually. . . .

FDEP has adequately addressed all the issues outlined in EPA's December 11, 1997, objection letter and considers the objection to be resolved. Therefore, once all the proposed changes are incorporated into the seven FP&L permits, the State may proceed with permit issuance.

We commend you and your staff for facilitating the resolution of these issues with Florida Power & Light. If you have any further questions regarding this matter, please contact Carla Pierce, Chief, Operating Source Section at (404) 562-9099.

Sincerely,

R. Douglas Neeley
Chief
Air, Radiation &
Technology Branch

cc: Florida Power & Light

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW
ATLANTA, GEORGIA 30303-8909

claire

DEC 11 1997

4APT-ARB

Howard L. Rhodes, Director
Air Resources Management Division
Florida Department of Environmental Protection
Mail Station 5500
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: EPA's Review of Proposed Title V Permits for Florida Power & Light

Dear Mr. Rhodes:

The purpose of this letter is to provide comments to the Florida Department of Environmental Protection (DEP) on the following proposed title V operating permits for Florida Power & Light (FP&L): Manatee Plant, Putnam Plant, Lauderdale Plant, Martin Plant, Port Everglades Plant, Riviera Plant, and Turkey Point Plant, which were consecutively posted on DEP's web site from October 31, 1997, to November 17, 1997. Based on the Environmental Protection Agency's (EPA's) review of these proposed permits and the supporting information for each plant, EPA formally objects, under the authority of Section 505(b) of the Clean Air Act (the Act) and 40 C.F.R. § 70.8(c) (see also Florida Regulation 62-213.450), to the issuance of all seven permits on the basis that the permits do not fully meet the periodic monitoring requirements of § 70.6(a)(3)(i). In addition, EPA objects to some of the proposed permits because they contain deviations from applicable requirements and some of the permits do not ensure practical enforceability of certain permit terms.

As you know, 40 C.F.R. § 70.8(c) requires EPA to object to the issuance of a proposed permit in writing within 45 days of receipt of the proposed permit (and all necessary supporting information) if EPA determines that the permit is not in compliance with the applicable requirements under the Act or 40 C.F.R. Part 70. Section 70.8(c)(4) and Section 505(c) of the Act further provide that if the State fails to revise and resubmit a proposed permit within 90 days to satisfy the objection, the authority to issue or deny the permit passes to EPA and EPA will act accordingly. Because the objection issues must be fully addressed within the 90 days, we suggest that the revised permits be submitted in advance in order that any outstanding issues may be addressed prior to the expiration of the 90-day period.

Pursuant to 40 C.F.R. § 70.8(c), this letter and the enclosures to it provide a statement of EPA's reasons for its objection. Enclosures 1 through 7 contain a detailed

explanation of the objection issues specific to each permit and the changes necessary to make each permit consistent with the requirements of 40 C.F.R. Part 70. In some cases, the enclosure also contains general comments with regard to the individual permit.

With regard to the objection issue relating to periodic monitoring, EPA would like to emphasize that a permit that does not contain adequate periodic monitoring, does not meet the requirements of 40 C.F.R. Part 70. Florida rule 62-213.440(1)(b)1.b. states that each Part 70 permit shall specify the following requirements with respect to monitoring:

> "Where the applicable requirement does not specify a method for periodic testing or instrumental or noninstrumental monitoring, periodic monitoring sufficient to yield reliable data and demonstrate compliance with the permit. Such monitoring requirements shall assure use of recordkeeping terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement."

The cited State regulation is based on 40 C.F.R. § 70.6(a)(3)(i)(B), which requires each Part 70 permit to contain the following requirements with respect to monitoring: "Where the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit..."

Part 70's periodic monitoring requirements implement, in part, Section 504(a) of the Act, which requires that Part 70 permits contain "conditions as are necessary to assure compliance with applicable requirements of [the] Act, including the requirements of the applicable implementation plan" and Section 504(c), which requires "monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions." In addition, Section 114 of the Act requires "enhanced monitoring" for major stationary sources. The EPA's recently-issued compliance assurance monitoring (CAM) rule indicates that Part 70 periodic monitoring satisfies enhanced monitoring under the Act for emissions units not subject to Part 64's CAM requirements. See 62 Fed. Reg. 54900, 54904 (Oct. 22, 1997).

In determining whether a permit application has appropriate periodic monitoring to assure compliance with all permit terms and conditions and all applicable requirements, a permitting authority must first determine whether an applicable requirement

already requires periodic testing or instrumental or noninstrumental monitoring. See 40 C.F.R. § 70.6(a)(3)(i)(B); 62-213.440(1)(b)1.b, F.A.C. Whether an underlying applicable requirement contains periodic monitoring or testing must be judged according to the criteria defining and governing periodic monitoring: namely, whether it is sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit. In order for each permit to include monitoring that is sufficient to assure compliance with all applicable requirements, an applicant or permitting authority may have to enhance or supplement monitoring or testing in an existing applicable requirement through periodic monitoring that yields reliable and representative compliance data.[1] Alternatively, the underlying applicable requirement may already contain monitoring or testing sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit, in which case the periodic monitoring requirement is satisfied and no additional monitoring is necessary.

We understand DEP's view of periodic monitoring to be that "additional monitoring requirements are to be imposed only when the applicable requirement does not specify or require any monitoring." [Letter from C.H. Fancy, Chief, Bureau of Air Regulation, Florida DEP to R. Douglas Neeley, Chief, Air and Radiation Technology Branch, Air, Pesticides and Toxics Management Division, U.S. EPA Region 4, (Nov. 6, 1997) (emphasis in original).] DEP has asserted that "[t]he 'adequacy' of such monitoring is not addressed nor defined in either Part 70 or Chapter 62-213, F.A.C." Id. We do not agree. As discussed above, periodic monitoring under Part 70 — which is identical in material respects to Florida's regulations — is defined by the criteria that govern the adequacy of periodic monitoring, whether that monitoring is contained in an applicable requirement or supplements an applicable requirement. All monitoring must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit.

One of our concerns is that DEP's view of periodic monitoring means that monitoring in an existing applicable requirement — no matter how infrequent and no matter how inadequate to the task of compliance assurance — may never be enhanced in order to assure compliance with an applicable

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[1] See, e.g., 62 Fed. Reg. at 54904 ("Part 70 currently requires all title V operating permits to include monitoring to assure compliance with the permit. This includes all existing monitoring requirements as well as additional monitoring (generally referred to as 'periodic monitoring') if current requirements fail to specify appropriate monitoring. ...[E]xisting monitoring when supplemented as necessary by periodic monitoring is sufficiently enhanced for emissions units not subject to part 64.")

requirement of the Clean Air Act. We do not believe that this gives the meaning due "enhanced monitoring" under Section 114 of the Act. If existing monitoring is inadequate to assure compliance and we accept DEP's view that the adequacy of such monitoring may not be addressed through supplemental periodic monitoring, then Title V permits would not meet the statutory and regulatory requirement to contain monitoring that is adequate to assure compliance with all applicable requirements. An applicable requirement which contains any monitoring that recurs on some cyclical basis — which presumably could be once every year, five years, ten years or more — does not mean such monitoring is "periodic" for purposes of Title V and the Clean Air Act.

Where EPA determines that permits do not contain periodic monitoring that will assure compliance with a permit's terms and conditions, EPA may object to those proposed permits and require that any final issued permits be reopened to address any deficiencies. EPA Region 4 will work with DEP to determine whether any of the State's final issued permits must be reopened to address issues relative to periodic monitoring.

We regret that we were unable to resolve these issues with your office prior to the expiration of the 45-day review period. However, we are fully confident that Florida DEP will act to respond to these concerns in a timely manner. If you have any questions or wish to discuss this further, please contact Mr. Douglas Neeley, Chief, Air & Radiation Technology Branch or Ms. Carla Pierce, Chief, Operating Source Section at (404) 562-9105. Should your staff need additional information they may contact Ms. Yolanda Adams, Title V Technical Expert at (404) 562-9116, Mr. David McNeal, Monitoring Expert, at (404) 562-9102, or Ms. Lynda Crum, Associate Regional Counsel, at (404) 562-9524.

Sincerely,

James S. Ratzman for

Winston A. Smith
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Enclosures

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Enclosure 1

U.S. EPA Region 4 Objection
Proposed Part 70 Operating Permit
Florida Power & Light, Manatee Plant

EPA objects to the issuance of this permit due to the following reasons:

(1) Periodic Monitoring - The permit does not require sufficient periodic monitoring to ensure compliance with the applicable opacity standard. The Manatee permit only requires an annual one hour Method 9 visible emissions reading. This does not constitute adequate periodic monitoring to ensure continuous compliance with the opacity standard. Since continuous opacity monitors (COMs) have been installed on the units in question, these monitors should be used to ensure compliance with the opacity standard. Requiring that the opacity monitors be used for conducting periodic monitoring imposes little or no additional burden on FP&L.

(2) Periodic Monitoring - The permit does not require sufficient periodic monitoring to ensure compliance with the applicable particulate matter standard. The Manatee permit requires an annual emission test to verify compliance with the applicable three-hour particulate emission standard. It has not been demonstrated that an annual emission test alone will constitute the basis for a credible certification of compliance with the particulate emission standard for units 001 and 002. If the State believes that no additional monitoring is warranted to ensure compliance with the particulate standard it must provide a technical demonstration in the statement of basis identifying the rationale for basing the compliance certification only on data from a short-term annual test. Otherwise, the permit must be revised to identify additional monitoring that will be conducted in order to ensure compliance with the particulate matter standard. We suggest the following approaches to periodic monitoring:

a) Correlate COM data to PM standard - this approach would not require additional monitoring equipment to be installed.
b) Correlate injection rate of specific compounds to ash content of the fuel and emission rate. Recordkeeping would consist of ash content and corresponding injection rate.
c) Other monitoring approach demonstrated by the permittee to be a valid method for assuring compliance with the applicable three-hour particulate matter standard.

In addition, the Manatee permit contains a provision regarding operating conditions during the annual testing for particulate matter and visible emissions which states 'that the tests shall be conducted under both sootblowing and non-sootblowing conditions, and shall be conducted while injecting the maximum quantity of additives approved by the Department.' Information provided to EPA indicates that these additives are used to control both particulate matter and nitrogen oxide emissions and that the amount of additive is dependent upon the ash content of the fuel. No provision exists within the permit which requires the unit to continue operating under the same conditions which existed during the test. Condition A.27 should be modified to reflect that 'the tests shall be conducted under both sootblowing and non-sootblowing conditions, and shall be conducted while injecting additives consistent with normal operating practices approved by the Department.'

(3) Deviation from Applicable Requirement - Florida rule 62-296.405(1)(f) 1.a., requires all emissions units to install continuous monitoring systems for monitoring opacity. The only exemption appears to be for units that do not use emission control equipment. Since emissions from units 001 and 002 are controlled with multiple cyclones, it appears that Florida regulations would require the use of COMs to determine compliance with the opacity standard. This applicable requirement must be included in the permit, or clarification must be provided in the statement of basis as to why this requirement does not apply.

(4) Deviation from Applicable Requirement - Florida rule 62-296.405(1)(a) requires fossil fuel steam generators to comply with a 20 percent opacity standard, with the exception that sources electing to test for particulate matter emission compliance quarterly shall be allowed visible emissions of 40 percent opacity. The Manatee permit requires compliance with a 40 percent opacity standard; however, it only requires an annual compliance test for particulate matter emissions. We understand that this variance from the SIP's quarterly testing requirement was granted by a State Order. However, this variance was never submitted by the State of Florida as a SIP revision, and therefore, was never approved into the SIP. Therefore, the Manatee permit must ensure compliance with the requirements of the SIP as stated in rule 62-296.405(1)(a).

(5) Practical Enforceability - Florida rule 62-296.405(1)(c)1.g. does not contain an averaging time that can serve as an enforceable component to determine compliance with the applicable SO_2 standard for units 001 and 002. In instances where the SIP regulations do not indicate an averaging time

for the standard, the permit must include one to determine compliance with the applicable requirement. Even though the source has installed and certified CEMs, we understand that they have opted to demonstrate compliance with the SO_2 limit via fuel sampling and analysis, as allowed by Florida rule 62-296.405(1)(e)3. Florida rule 62-296.405(1)(e)3. does not specify a sampling frequency, thereby giving DEP the flexibility to specify a frequency that would ensure compliance with the standard.

Florida rule 62-296.405(1)(f)1.b. states that "Those emission units not having an operating flue gas desulfurization device may monitor sulfur dioxide emissions by fuel sampling and analysis according to methods approved by EPA." The fuel sampling approach stated in the proposed permit would allow for a determination of compliance on a monthly basis only. As stated in Rule 62-213.440(1)(b)1.b., "...monitoring requirements shall assure use of recordkeeping terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement;" The fuel sampling analysis method stated in the proposed permit is not adequate to demonstrate compliance with the applicable SO_2 standard which we understand to be in place to ensure compliance with the National Ambient Air Quality Standards (NAAQS). As indicated in DEP's response to comments memorandum dated October 23, 1997, DEP has determined that the averaging period for this standard should be 3 hours. Accordingly, the best course of action would be to use the CEMs data to derive 3 hour averages. Properly conducted fuel sampling may be an adequate substitute for the Manatee plant since it is permitted to burn only oil and gas. However, EPA realizes that conducting fuel analysis based on a 3 hour average would be too burdensome for the source. Given the relative consistency of the oil and gas fuel sources, 24 hour averaging of the fuel data may be sufficiently representative of the source's compliance with the 3 hour emission limit. Therefore, EPA is willing to accept a 24 hour averaging time for the fuel sampling analysis to ensure compliance with the applicable standard. The Region has accepted a 24 hour averaging time, which is still protective of the NAAQS, in other title V permits where the averaging time is not specified in the regulations. Please, refer to the Turkey Point Plant permit, condition A.19., for an example of an acceptable sampling protocol.

Based on the above information, DEP must revise the Manatee permit to either require that the fuel analysis be conducted on a daily basis, rather than a monthly basis, or require the use of the CEMs to determine compliance with this standard. Requiring that the CEMs be used for conducting

periodic monitoring imposes little or no additional burden on FP&L. Please, refer to the Riviera and Turkey Point permits. Even though use of CEMs are not the compliance method pursuant to the SIP, the State has required the use of the CEMs to ensure compliance with the same SIP SO_2 standard in those permits.

(6) Exemptions from Permitting: Appendix E-1- It is our understanding that the changes to F.A.C. rules 62-213.300, and 62-213. 420-440 addressed in a preliminary draft dated June 2, 1997, were officially adopted by the State on November 13, 1997. Therefore, the State needs to revise the permit, specifically Section II, item 6 and Appendix E-1, to delete the term "exempted from permitting" and replace it with the language contained in rules 62-213.300, and 62-213. 420-440. Additionally, as agreed in previous conversations between Regional staff and the State, the State needs to remove the reference to F.A.C. rule 62-4, since it in not related to activities that may be considered "insignificant" under the title V program.

(7) Periodic Monitoring - It is unclear how the permittee will show compliance with the heat input limitations in condition A.1. of the permit. The permit must require that the facility maintain fuel usage records to demonstrate compliance with the applicable heat input limit. Since this recordkeeping will be used to determine compliance with an hourly heat input rate limitation, the permit should contain an hourly fuel usage recordkeeping requirement in order to ensure that the facility remains in compliance with the hourly heat input limit.

(8) Periodic Monitoring - Condition A.8 allows particulate matter emissions up to an average of 0.3 lbs. per million BTU heat input during a 3-hour period in any 24-hour period for soot blowing and load change. In addition, Condition A.6 allows visible emissions up to 60 percent opacity during soot blowing and load changes. A load change is defined to occur when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more. There does not, however, appear to be any conditions that require the source to record the time, date, and duration of these events. The permit must require that the facility keep records of these events to ensure compliance with this requirement.

In addition to the above objections, our review has identified the following concern regarding the Manatee permit:

1. Section II, Facility-Wide Conditions

   Condition 7. should be identified as "Not Federally Enforceable."

Enclosure 2

U.S. EPA Region 4 Objection
Proposed Part 70 Operating Permit
Florida Power & Light, Putnam Plant

EPA objects to the issuance of this permit due to the following reasons:

(1) Exemptions from Permitting: Appendix E-1- It is our understanding that the changes to F.A.C. rules 62-213.300, and 62-213. 420-440 addressed in a preliminary draft dated June 2, 1997, were officially adopted by the State on November 13, 1997. Therefore, the State needs to revise the permit, specifically Section II, item 6 and Appendix E-1, to delete the term "exempted from permitting" and replace it with the language contained in rules 62-213.300, and 62-213. 420-440. Additionally, as agreed in previous conversations between Regional staff and the State, the State needs to remove the reference to F.A.C. rule 62-4, since it in not related to activities that may be considered "insignificant" under the title V program.

(2) Periodic Monitoring - It is unclear how the permittee will show compliance with the heat input limitations in conditions A.1. and B.1. of the permit. The permit must require that the facility maintain fuel usage records to demonstrate compliance with the applicable heat input limit. Since this recordkeeping will be used to determine compliance with an hourly heat input rate limitation, the permit should contain an hourly fuel usage recordkeeping requirement in order to ensure that the facility remains in compliance with the hourly heat input limit.

In addition to the above objections, our review has identified the following concerns regarding the Putnam permit:

1. Subsection D - Permit condition D.4. needs to be renumbered. It seems that several portions of the boilerplate language that were not applicable were deleted without renumbering/editing the contents of the condition.

2. The NSPS Common Conditions (Section E) should contain language similar to Conditions A.1 and B.1 of Section II of the Martin Plant permit, i.e., "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." In addition, similar language should be added either to Condition A.1 or to a new Condition, which puts the reader on notice that the 40 CFR 60 term "owner and operator," means "permittee" in

this permit. In addition, the phrase "[t]o the extent allowed by law" in the Note above Condition E.1 should be deleted. It is ambiguous and not repeated in any of the other permits in this context.

Enclosure 3

U.S. EPA Region 4 Objection
Proposed Part 70 Operating Permit
Florida Power & Light, Lauderdale Plant

EPA objects to the issuance of this permit due to the following reasons:

(1) Periodic Monitoring - The permit does not require sufficient periodic monitoring to ensure compliance with the applicable opacity standards. For the four combined-cycle turbines with heat recovery steam generators, condition A.10. specifies that visible emissions shall not exceed 10% opacity while burning natural gas, or 20% opacity while burning distillate oil. Condition A.19 specifies a requirement for annual opacity tests to be performed on each combustion turbine with the fuel(s) used for more than 400 hours in the preceding 12-month period. For the two banks of 12 combustion turbines, condition B.6. specifies a 20 percent opacity limit, and condition B.14. specifies that a visible emissions compliance test shall be conducted on each combustion turbine that operates more than 400 hours in a federal fiscal year. The permit specifies that at least one combustion turbine shall be tested per year, and at least one compliance test shall be conducted on all 24 combustion turbines every five years. This does not constitute adequate periodic monitoring to ensure compliance with the opacity standards when burning fuel oil.

We recommend that the source be required to conduct visible emissions readings on a daily basis for the combined-cycle turbines and for the banks of combustion turbines, when these units burn fuel oil. The State may propose alternative monitoring so long as it yields reliable data that ensure compliance with the opacity standard.

(2) Periodic Monitoring - The permit does not require sufficient periodic monitoring to ensure compliance with the applicable particulate matter standard. Condition A.7 of the permit specifies a PM/PM10 emission limitation of 14.7 lb/hr for each combined-cycle combustion turbine fired with natural gas, and an emission limitation of 58 lb/hr for each combustion turbine fired with oil. Annual testing of PM using Method 5 or 17 is required in condition A.19 of the permit for combustion turbines with fuels used for more than 400 hours in the preceding 12-month period. It has not been demonstrated that an annual emission test alone will constitute the basis for a credible certification of compliance with the particulate emission standard. If the State believes that no additional monitoring is warranted to ensure compliance with the particulate standard, it must

provide a technical demonstration in the statement of basis identifying the rationale for basing the compliance certification only on data from a short-term annual test. Otherwise, the permit must be revised to identify additional monitoring that will be conducted in order to ensure compliance with the particulate matter standard.

(3) Periodic Monitoring - It is unclear how the permittee will show compliance with the heat input limitations in conditions A.3, and B.1 of the permit. The permit must require that the facility maintain fuel usage records to demonstrate compliance with the applicable heat input limit. Since this recordkeeping will be used to determine compliance with an hourly heat input rate limitation, the permit should contain an hourly fuel usage recordkeeping requirement in order to ensure that the facility remains in compliance with the hourly heat input limit. As an example, please refer to condition B.25, which ensures compliance with condition B.2, the heat input limitation for each bank of gas turbines.

(4) Practical Enforceability - Condition A.13 limits the sulfur content of light distillate oil fired in the turbines to a maximum of 0.3 weight percent and to a 12-month average value of no more than 0.2 weight percent. In order to constitute a practically enforceable requirement, this condition must be revised to clearly specify the procedures for calculating the sulfur content of the oil on a 12-month rolling average basis. This clarification is necessary because the current permit language could be interpreted to mean that the 12-month average sulfur content is calculated either as of the average of the daily sulfur analyses or as a weighted average based upon the sulfur content of the oil and amount burned on a daily basis. Of these two approaches, the only one that we consider acceptable is to calculate the average sulfur content on a mass-weighted basis. The basis for this position is that if Florida Power and Light is allowed to merely average the daily sulfur content of the oil, the company could burn large quantities of higher sulfur oil on a few days and achieve compliance by burning smaller quantities of lower sulfur content on a large number of days. Since this method of complying would circumvent the of the permit's intent to limit the annual average sulfur content of the oil combusted, the permit must be revised to eliminate the ambiguity about the calculation approach that will used to verify compliance with the annual average sulfur content limit.

(5) Exemptions from Permitting: Appendix E-1- It is our understanding that the changes to F.A.C. rules 62-213.300, and 62-213. 420-440 addressed in a preliminary draft dated June 2, 1997, were officially adopted by the State on

November 13, 1997. Therefore, the State needs to revise the permit, specifically Section II, item 6 and Appendix E-1, to delete the term "exempted from permitting" and replace it with the language contained in rules 62-213.300, and 62-213.420-440. Additionally, as agreed in previous conversations between Regional staff and the State, the State needs to remove the reference to F.A.C. rule 62-4, since it in not related to activities that may be considered "insignificant" under the title V program.

In addition to the above objections, our review has identified the following concerns regarding the Lauderdale permit:

1. VOC Emission Limit - Page 4, Facility-wide Conditions for Volatile Organic Compounds (VOCs): The permit specifies a limit for total VOC emissions from all emissions units at this facility (excluding the combined-cycle units) of 99.92 tons per year. The basis for this limit needs to be explained.

   It is not clear how the throughput, record keeping, and reporting requirements for the fuel storage tanks (Section III.C., p. 24 & 25) and for solvent usage (Section III.D., p. 26) will ensure compliance with the total VOC emission limit of 99.92 tons per year. The permit (Conditions C.2. and D.2.) should specify that VOC emissions will be calculated at least monthly, rather than on an annual basis. Of note is that the models for estimating air emissions from organic liquid storage tanks are contained in Chapter 7 of AP-42, not in Section 4-3. The permit (Conditions C.3. and D.3.) should also require the actual throughput for each tank and the quantities of solvents used to be recorded on a monthly basis.

2. Fuel Monitoring Schedule - Permit Condition A.12 refers to a customized fuel monitoring schedule approved by EPA. We recommend that this schedule be included in this permit condition, rather than referencing it.

3. Permit Condition Language - Condition 9 in Section II does not appear to be complete. It seems as though the language, "No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity without taking reasonable precautions to prevent such emissions." should be added as the first sentence in the paragraph.

4. Permit Terms - EPA recommends that the monitoring and operations section of the permit contain language, such as "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." In addition, EPA recommends that similar language be added either to Condition A.1 or to a new condition, which puts the reader on notice that the 40 CFR 60 term "owner and operator," means "permittee" in this permit.

Enclosure 4

U.S. EPA Region 4 Objection
Proposed Part 70 Operating Permit
Florida Power & Light, Martin Plant

EPA objects to the issuance of this permit due to the following reasons:

(1) Periodic Monitoring - The permit does not require sufficient periodic monitoring to ensure compliance with the applicable particulate matter standard. The Martin permit requires an annual emission test to verify compliance with the applicable particulate emission standard. It has not been demonstrated that an annual emission test alone will constitute the basis for a credible certification of compliance with the particulate emission standard for Units 1 and 2. If the State believes that no additional monitoring is warranted to ensure compliance with the particulate standard it must provide a technical demonstration in the statement of basis identifying the rationale for basing the compliance certification only on data from a short-term annual test. Otherwise, the permit must be revised to identify additional monitoring that will be conducted in order to ensure compliance with the particulate matter standard. We suggest the following approaches to periodic monitoring:

a) Correlate COM data to PM standard - this approach would not require additional monitoring equipment to be installed.
b) Correlate injection rate of specific compounds to ash content of the fuel and emission rate. Recordkeeping would consist of ash content and corresponding injection rate.
c) Other monitoring approach demonstrated by the permittee to be a valid method for assuring compliance with the applicable particulate matter standard.

In addition, the permit application states that magnesium hydroxide and related compounds may be injected into each boiler. Information provided to EPA indicates that these injected compounds (additives) are used to control both particulate matter and nitrogen oxide emissions and that the amount of additive is dependent upon the ash content of the fuel. No provision exists within the permit which addresses the approval and use of additives. The units should be required to operate during compliance tests at an injection rate consistent with normal operations.

(2) Practical Enforceability - Condition B.28 limits the sulfur

content of light distillate oil fired in the turbines to a maximum of 0.5 weight percent and to a 12-month average value of no more than 0.3 weight percent. In order to constitute a practically enforceable requirement, this condition must be revised to clearly specify the procedures for calculating the sulfur content of the oil on a 12-month rolling average basis. This clarification is necessary because the current permit language could be interpreted to mean that the 12-month average sulfur content is calculated either as of the average of the daily sulfur analyses or as a weighted average based upon the sulfur content of the oil and amount burned on a daily basis. Of these two approaches, the only one that we consider acceptable is to calculate the average sulfur content on a mass-weighted basis. The basis for this position is that if Florida Power and Light is allowed to merely average the daily sulfur content of the oil, the company could burn large quantities of higher sulfur oil on a few days and achieve compliance by burning smaller quantities of lower sulfur content on a large number of days. Since this method of complying would circumvent the of the permit's intent to limit the annual average sulfur content of the oil combusted, the permit must be revised to eliminate the ambiguity about the calculation approach that will used to verify compliance with the annual average sulfur content limit.

(3) Deviation from Applicable Requirement - Conditions A.7, B.9 and C.6 incorrectly cite the New Source Performance Standard (NSPS) (40 CFR 60.11(a)) to read as follows:

> "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." (emphasis added)

This appears to be an oversight since the most recent version of the NSPS dated 2/24/97 was revised to remove the word "only" to clarify that credible evidence may be used in ascertaining and supporting enforcement actions. See 62 Fed. Reg. 8314, 8328 (Feb. 24, 1997).

The following language that should be substituted from the most recent revision to 40 CFR 60.11(a) is:

> "Compliance with standards in this part, other than opacity standards, shall be determined in accordance with performance tests established by §60.8, unless otherwise specified in the applicable standard."

(4) Periodic Monitoring - Condition A.6 allows particulate matter emissions up to an average of 0.3 lbs. per million

BTU heat input during a 3-hour period in any 24-hour period for soot blowing and load change. There does not, however, appear to be any conditions that require the source to record the time, date, and duration of these events. The permit must require that the facility keep records of these events to ensure compliance with this requirement.

(5) Periodic Monitoring - It is unclear how the permittee will show compliance with the heat input limitations in conditions A.2, and B.3 of the permit. The permit must require that the facility maintain fuel usage records to demonstrate compliance with the applicable heat input limit. Since this recordkeeping will be used to determine compliance with an hourly heat input rate limitation, the permit should contain an hourly fuel usage recordkeeping requirement in order to ensure that the facility remains in compliance with the hourly heat input limit.

(6) Exemptions from Permitting: Appendix E-1- It is our understanding that the changes to F.A.C. rules 62-213.300, and 62-213. 420-440 addressed in a preliminary draft dated June 2, 1997, were officially adopted by the State on November 13, 1997. Therefore, the State needs to revise the permit, specifically Section II, item 4 and Appendix E-1, to delete the term "exempted from permitting" and replace it with the language contained in rules 62-213.300, and 62-213. 420-440. Additionally, as agreed in previous conversations between Regional staff and the State, the State needs to remove the reference to F.A.C. rule 62-4, since it in not related to activities that may be considered "insignificant" under the title V program.

Enclosure 5

U.S. EPA Region 4 Objection
Proposed Part 70 Operating Permit
Florida Power and Light, Port Everglades Plant

EPA objects to the issuance of this permit due to the following reasons:

(1) Periodic Monitoring - The permit does not require sufficient periodic monitoring to ensure compliance with the applicable opacity standard. The Port Everglades permit only requires an annual one hour Method 9 visible emissions reading. This does not constitute adequate periodic monitoring to ensure continuous compliance with the opacity standard. Since continuous opacity monitors (COMs) have been installed on units 1 through 4, these monitors should be used to ensure compliance with the opacity standard for these units. Requiring that the opacity monitors be used for conducting periodic monitoring imposes little or no additional burden on FP&L. .Please note that while the permit indicates that units 1 through 4 have operational continuous opacity monitors, the "Permit Summary Tables" indicate that there are no "CMS."

The Region is concerned about the lack of periodic monitoring provisions for opacity for the 12 simple cycle turbines (unit #5) in the proposed Port Everglades permit. We question whether an annual visible emissions test alone will provide enough data for certifying compliance with the applicable opacity limit for an entire year, and we question how FP&L will be able to certify compliance with opacity limits, in good faith, in the absence of data to back up the certification. We recommend that the source be required to conduct visible emissions readings on a daily basis when these units burn fuel oil. The State may propose alternative monitoring so long as it yields reliable data that ensure compliance with the opacity standard.

(2) Periodic Monitoring - Conditions A.15 and B.15 of the proposed permit for Port Everglades Plant indicate that the source is required to maintain hourly fuel records of the amount of fuel fired, the ratio of fuel oil to natural gas if co-fired, the heating value, and sulfur content of each fuel fired. Conditions A.15 and B.15 also describe the methodology by which the sulfur content and heating value of the fuel will be determined. The analysis of the monthly composite of fuel is not adequate to ensure compliance with the applicable SO_2 standard which is based on a three-hour rolling average (see Conditions A.11, B.11). Since the fuel records required in Condition A.15 need to be "of sufficient detail" to identify the testing requirements of Condition A.14 (Operating Conditions During Testing - PM and

VE), and A.11 (sulfur dioxide monitoring operations to demonstrate compliance with the sulfur dioxide limit based on a 3-hour rolling average), a fuel record and sampling protocol similar to the one required in Condition A.19 of the proposed Title V permit for the Florida Power & Light, Turkey Point Fossil Plant, should be required in the proposed permit for the Port Everglades Plant. Condition A.19 of the Turkey Point proposed permit requires the source to take hourly fuel samples and analyze the daily composite on a daily basis.

(3) Periodic Monitoring - The permit does not require sufficient periodic monitoring to ensure compliance with the applicable particulate matter standard. The Port Everglades Plant permit requires an annual emission test to verify compliance (Conditions A.4, A.10, B.4, B.10) with the applicable three-hour particulate emission standard. It has not been demonstrated that an annual emission test alone will constitute the basis for a credible certification of compliance with the particulate emission standard for Units 1 through 4. If the State believes that no additional monitoring is warranted to ensure compliance with the particulate standard it must provide a technical demonstration in the statement of basis identifying the rationale for basing the compliance certification only on data from a short-term annual test. Otherwise, the permit must be revised to identify additional monitoring that will be conducted in order to ensure compliance with the particulate matter standard. We suggest the following approaches to periodic monitoring:

a) Correlate COM data to PM standard - this approach would not require additional monitoring equipment to be installed.
b) Correlate injection rate of specific compounds to ash content of the fuel and emission rate. Recordkeeping would consist of ash content and corresponding injection rate.
c) Other monitoring approach demonstrated by the permittee to be a valid method for assuring compliance with the applicable three-hour particulate matter standard.

In addition, the permitting notes under Section III, Subsection A and Subsection B of the proposed permit for Port Everglades indicate that units 1 through 4 may inject additives such as magnesium hydroxide and related compounds into each boiler. Information provided to EPA indicates that these injected additives are used to control particulate matter and nitrogen oxide emissions and that the amount of additive is dependent upon the ash content of the fuel. The proposed permit does not, however, address the approval and

use of these additives. These units should be required to operate during compliance tests using an injection rate consistent with normal operations. This could be corrected by adding to the particulate compliance language: "that the tests shall be conducted under both sootblowing and non-sootblowing conditions, and shall be conducted while injecting approved additives consistent with normal operating practices approved by the department."

(4) Practical Enforceability - A note under Conditions A.14 and B.14 in the proposed permit for Port Everglades, references an "informal agreement" between the facility and Broward County to limit the visible emissions to less than 20% opacity . This condition does not appear to be enforceable and should be removed from the permit. If the source is actually required to maintain opacity below 20% rather than the 40% standard indicated in Condition A.4 and B.4 then an enforceable condition needs to be included in the permit that indicates the correct opacity standard (see comment (5) below).

(5) Deviation from Applicable Requirement - Florida rule 62-296.405(1)(a) requires fossil fuel steam generators to comply with a 20 percent opacity standard, with the exception that sources electing to test for particulate matter emission compliance quarterly shall be allowed visible emissions of 40 percent opacity. The Port Everglades permit requires compliance with a 40 percent opacity standard; however, it only requires an annual compliance test for particulate matter emissions. We understand that this variance from the SIP's quarterly testing requirement requirements was granted by a State Order. However, this variance was never submitted by the State of Florida as a SIP revision, and therefore, was never approved into the SIP. Therefore, the Port Everglades permit must ensure compliance with the requirements of the SIP as stated in rule 62-296.405(1)(a).

(6) Deviation from Applicable Requirement - Florida rule 62-296.405(1)(f) 1.a, requires all emissions units to install continuous monitoring systems for monitoring opacity. The only exemption appears to be for units that do not use emission control equipment. Since emissions from these units (units 1 through 4) are controlled with multiple cyclones, it appears that Florida regulations would require the use of COMs to determine compliance with the opacity standard. This applicable requirement must be included in the permit, or clarification must be provided as to why this requirement does not apply.

(7) Periodic Monitoring - Conditions A.7 and B.7 allow

particulate matter emissions up to an average of 0.3 lbs. per million BTU heat input during a 3-hour period in any 24-hour period for soot blowing and load change. In addition, Condition A.5 allows visible emissions up to 60 percent opacity during soot blowing and load changes. A load change is defined to occur when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more. There does not, however, appear to be any conditions that require the source to record the time, date, and duration of these events. The permit must require that the facility keep records of these events to ensure compliance with this requirement.

(8) Exemptions from Permitting: Appendix E-1- It is our understanding that the changes to F.A.C. rules 62-213.300, and 62-213. 420-440 addressed in a preliminary draft dated June 2, 1997, were officially adopted by the State on November 13, 1997. Therefore, the State needs to revise the permit, specifically Section II, item 6 and Appendix E-1, to delete the term "exempted from permitting" and replace it with the language contained in rules 62-213.300, and 62-213. 420-440. Additionally, as agreed in previous conversations between Regional staff and the State, the State needs to remove the reference to F.A.C. rule 62-4, since it in not related to activities that may be considered "insignificant" under the title V program.

In addition to the above objections, our review has identified the following concern regarding the Port Everglades permit:

1. Conditions A.11 and A.13 indicate that the permittee shall demonstrate compliance with the sulfur dioxide limit using CEMs. Condition A.13 also appears to offer the source the opportunity to use EPA test methods 6, 6A, 6B, 6C for demonstrating compliance with the applicable SO2 standard. If the source is required to use CEMs as a method of demonstrating compliance, it is unclear why Condition A.13 indicates alternative test methods. The Region recommends that the language in A.13, which allows the above test methods for measuring sulfur dioxide emissions, be removed from Condition A.13 in order to avoid confusion.

   Condition A.13 also allows the source to obtain an alternate procedure under the provisions of Rule 62-297.620, F.A.C.. Rule 62-297.620 (Exceptions and Approval of Alternate Procedures and Requirements) does not allow the source to obtain an alternative to continuous monitoring requirements. Therefore, it appears that the language in Condition A.13

which suggests that the source has the option of obtaining an alternative procedure to CEMs for demonstrating compliance with the SO_2 limit should be removed to avoid confusion. Please, refer to the Turkey Point permit which contains requirements for CEMs in conditions A.9 and A.13, but does not include the confusing language mentioned above.

Enclosure 6

U.S. EPA Region 4 Objections
Proposed Part 70 Operating Permit
Florida Power & Light, Riviera Plant

EPA objects to the issuance of this permit due to the following reasons:

(1) Periodic Monitoring - The permit does not require sufficient periodic monitoring to ensure compliance with the applicable opacity standard. The Riviera permit only requires an annual one hour Method 9 visible emissions reading. This does not constitute adequate periodic monitoring to ensure continuous compliance with the opacity standard. Since continuous opacity monitors (COMs) have been installed on the units in question, these monitors should be used to ensure compliance with the opacity standard. Requiring that the opacity monitors be used for conducting periodic monitoring imposes little or no additional burden on FP&L.

(2) Periodic Monitoring - The permit does not require sufficient periodic monitoring to ensure compliance with the applicable particulate matter standard. The Riviera permit requires an annual emission test to verify compliance with the applicable three-hour particulate emission standard. It has not been demonstrated that an annual emission test alone will constitute the basis for a credible certification of compliance with the particulate emission standard for Units 1 and 2. If the State believes that no additional monitoring is warranted to ensure compliance with the particulate standard it must provide a technical demonstration in the statement of basis identifying the rationale for basing the compliance certification only on data from a short-term annual test. Otherwise, the permit must be revised to identify additional monitoring that will be conducted in order to ensure compliance with the particulate matter standard. We suggest the following approaches to periodic monitoring:

a) Correlate COM data to PM standard - this approach would not require additional monitoring equipment to be installed.
b) Correlate injection rate of specific compounds to ash content of the fuel and emission rate. Recordkeeping would consist of ash content and corresponding injection rate.
c) Other monitoring approach demonstrated by the permittee to be a valid method for assuring compliance with the applicable three-hour particulate matter standard.

In addition, the Riviera permit states that magnesium oxide, magnesium hydroxide and related compounds may be injected into each boiler. Information provided to EPA indicates that these injected compounds (additives) are used to control both particulate matter and nitrogen oxide emissions and that the amount of additive is dependent upon the ash content of the fuel. No provision exists within the permit which addresses the approval and use of additives. The units should be required to operate during compliance tests at an injection rate consistent with normal operations. This could be corrected by adding to the particulate compliance language: "the tests shall be conducted under both sootblowing and non-sootblowing conditions, and shall be conducted while injecting approved additives consistent with normal operating practices approved by the Department."

(3) Deviation from Applicable Requirement - Florida rule 62-296.405(1)(f) 1.a, requires all emissions units to install continuous monitoring systems for monitoring opacity. The only exemption appears to be for units that do not use emission control equipment. Since emissions from these units are controlled with multiple cyclones, it appears that Florida regulations would require the use of COMs to determine compliance with the opacity standard. This applicable requirement must be included in the permit, or clarification must be provided in the statement of basis as to why this requirement does not apply.

(4) Deviation from Applicable Requirement - Florida rule 62-296.405(1)(a) requires fossil fuel steam generators to comply with a 20 percent opacity standard, with the exception that sources electing to test for particulate matter emission compliance quarterly shall be allowed visible emissions of 40 percent opacity. The Riviera permit requires compliance with a 40 percent opacity standard; however, it only requires an annual compliance test for particulate matter emissions. We understand that this variance from the SIP's quarterly testing requirement was granted by a State Order. However, this variance was never submitted by the State of Florida as a SIP revision, and therefore, was never approved into the SIP. Therefore, the Manatee permit must ensure compliance with the requirements of the SIP as stated in rule 62-296.405(1)(a).

(5) Deviation from Applicable Requirement - Condition A.9 states that 'The sulfur dioxide emission limitation shall apply at all times including startup, shutdown, and load change, but shall not apply during malfunction provided best operational practices to minimize emissions are adhered to and the duration of excess emissions are minimized and does not exceed two hours in any 24-hour period.' These units do not have sulfur dioxide controls. Please provide a definition

of what constitutes a malfunction as used in this permit condition for the Riviera Plant. The SIP rules (62-296.405(1)(c) and 62-296.405)(1)(c)) do not provide for a relaxation of the SIP limit during a malfunction. This condition should be revised to be consistent with the applicable regulations.

(6) Exemptions from Permitting; Appendix E-1- It is our understanding that the changes to F.A.C. rules 62-213.300, and 62-213. 420-440 addressed in a preliminary draft dated June 2, 1997, were officially adopted by the State on November 13, 1997. Therefore, the State needs to revise the permit, specifically Section II, item 6 and Appendix E-1, to delete the term "exempted from permitting" and replace it with the language contained in rules 62-213.300, and 62-213. 420-440. Additionally, as agreed in previous conversations between Regional staff and the State, the State needs to remove the reference to F.A.C. rule 62-4, since it in not related to activities that may be considered "insignificant" under the title V program.

(7) Periodic Monitoring - Condition A.8 allows particulate matter emissions up to an average of 0.3 lbs. per million BTU heat input during a 3-hour period in any 24-hour period for soot blowing and load change. In addition, Condition A.6 allows visible emissions up to 60 percent opacity during soot blowing and load changes. A load change is defined to occur when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more. There does not, however, appear to be any conditions that require the source to record the time,date, and duration of these events. The permit must require that the facility keep records of these events to ensure compliance with this requirement.

In addition to the above objections, our review has identified the following concerns regarding the Riviera permit:

1. Section II, Facility-Wide Conditions.

   Condition 7 should be identified as "Not Federally Enforceable."

2. Conditions A.15 and A.23 indicate that the permittee shall demonstrate compliance with the sulfur dioxide limit using CEMs. Condition A.23 also appears to offer the source the opportunity to use EPA test methods 6, 6A, 6B, 6C for demonstrating compliance with the applicable SO_2 standard. If the source is required to use CEMs as a method of

demonstrating compliance, it is unclear why Condition A.23 indicates alternative test methods. The Region recommends that the language in A.23, which allows the above test methods for measuring sulfur dioxide emissions, be removed from Condition A.23 in order to avoid confusion.

Condition A.23 also allows the source to obtain an alternate procedure under the provisions of Rule 62-297.620, F.A.C.. Rule 62-297.620 (Exceptions and Approval of Alternate Procedures and Requirements) does not allow the source to obtain an alternative to continuous monitoring requirements. Therefore, it appears that the language in Condition A.23 which suggests that the source has the option of obtaining an alternative procedure to CEMs for demonstrating compliance with the SO_2 limit should be removed to avoid confusion. Please, refer to the Turkey Point permit which contains requirements for CEMs in conditions A.9 and A.13, but does not include the confusing language mentioned above.

Enclosure 7

U.S. EPA Region 4 Objection
Proposed Part 70 Operating Permit
Florida Power & Light, Turkey Point Plant

EPA objects to the issuance of this permit due to the following reasons:

(1) Periodic Monitoring - The permit does not require sufficient periodic monitoring to ensure compliance with the applicable opacity standard. The Turkey Point permit only requires an annual one hour Method 9 visible emissions reading. This does not constitute adequate periodic monitoring to ensure continuous compliance with the opacity standard. Since continuous opacity monitors (COMs) have been installed on the units in question, these monitors should be used to ensure compliance with the opacity standard. Requiring that the opacity monitors be used for conducting periodic monitoring imposes little or no additional burden on FP&L.

(2) Periodic Monitoring - The permit does not require sufficient periodic monitoring to ensure compliance with the applicable particulate matter standard. The Turkey Point permit requires an annual emission test to verify compliance with the applicable three-hour particulate emission standard. It has not been demonstrated that an annual emission test alone will constitute the basis for a credible certification of compliance with the particulate emission standard for Units 1 and 2. If the State believes that no additional monitoring is warranted to ensure compliance with the particulate standard it must provide a technical demonstration in the statement of basis identifying the rationale for basing the compliance certification only on data from a short-term annual test. Otherwise, the permit must be revised to identify additional monitoring that will be conducted in order to ensure compliance with the particulate matter standard. We suggest the following approaches to periodic monitoring:

a) Correlate COM data to PM standard - this approach would not require additional monitoring equipment to be installed.
b) Correlate injection rate of specific compounds to ash content of the fuel and emission rate. Recordkeeping would consist of ash content and corresponding injection rate.
c) Other monitoring approach demonstrated by the permittee to be a valid method for assuring compliance with the applicable three-hour

particulate matter standard.

(3) Exemptions from Permitting: Appendix E-1- It is our understanding that the changes to F.A.C. rules 62-213.300, and 62-213. 420-440 addressed in a preliminary draft dated June 2, 1997, were officially adopted by the State on November 13, 1997. Therefore, the State needs to revise the permit, specifically Section II, item 6 and Appendix E-1, to delete the term "exempted from permitting" and replace it with the language contained in rules 62-213.300, and 62-213. 420-440. Additionally, as agreed in previous conversations between Regional staff and the State, the State needs to remove the reference to F.A.C. rule 62-4, since it in not related to activities that may be considered "insignificant" under the title V program.

(4) Deviation from Applicable Requirement -Florida rule 62-296.405(1)(a) requires fossil fuel steam generators to comply with a 20 percent opacity standard, with the exception that sources electing to test for particulate matter emission compliance quarterly shall be allowed visible emissions of 40 percent opacity. The Turkey Point permit requires compliance with a 40 percent opacity standard; however, it only requires an annual compliance test for particulate matter emissions. We understand that this variance from the SIP's quarterly testing requirement was granted by a State Order. However, this variance was never submitted by the State of Florida as a SIP revision, and therefore, was never approved into the SIP. Therefore, the Turkey Point permit must ensure compliance with the requirements of the SIP as stated in rule 62-296.405(1)(a).

(5) Periodic Monitoring - It is unclear how the permittee will show compliance with the heat input limitations in conditions A.1, and B.1 of the permit. The permit must require that the facility maintain fuel usage records to demonstrate compliance with the applicable heat input limit. Since this recordkeeping will be used to determine compliance with an hourly heat input rate limitation, the permit should contain an hourly fuel usage recordkeeping requirement in order to ensure that the facility remains in compliance with the hourly heat input limit.

(6) Periodic Monitoring - Condition A.8 allows particulate matter emissions up to an average of 0.3 lbs. per million BTU heat input during a 3-hour period in any 24-hour period for soot blowing and load change. In addition, Condition A.6 allows visible emissions up to 60 percent opacity during soot blowing and load changes. A load change is defined to

occur when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more. There does not, however, appear to be any conditions that require the source to record the time, date, and duration of these events. The permit must require that the facility keep records of these events to ensure compliance with this requirement.

In addition to the above objections, our review has identified the following concerns regarding the Turkey Point permit:

1. Section III, condition A.3 allows the use of magnesium hydroxide fuel additives. However, in the permit application, FP&L stated their "right to use other additives if they are suitable." If the State's intent is to limit the use of additives to only magnesium hydroxide, it should clearly establish that in the permit. However, the State may want to address the use of other additives via alternative operating scenarios, or another type of procedure.

2. Section II, Facility-Wide Conditions.

   Condition 7 should be identified as "Not Federally Enforceable."

   Condition 8, as written does not appear to be complete. It seems as though the language, "No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity without taking reasonable precautions to prevent such emissions." should be added as the first sentence in the paragraph.

3. Condition B.6 states that Unit-003 is subject to a NO_x standard such that "emissions shall not exceed 4.75 lb per million Btu heat input. These limits shall apply at all times except during periods of startup, shutdown, or malfunction as provided by Rule 62-210.700, F.A.C." Condition B.8 requires infrequent testing, on the order of "Annual emission testing shall be conducted during each federal fiscal year (October 1 - September 30). In addition, testing is waived entirely during years in which units operate less than 400 hours." Because this requirement

entails infrequent sampling, we recommend that information justifying this frequency be added to the statement of basis. Such justification could include a demonstration that the unit is unlikely to exceed this limit.

Florida Power & Light Company
Riviera Plant
Facility ID No.: 0990042
Palm Beach County

Initial Title V Air Operation Permit
DRAFT Permit No.: 0990042-001-AV

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

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

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

September 19, 1997

Initial Title V Air Operation Permit
DRAFT Permit No.: 0990042-001-AV

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Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

Permittee:
Florida Power & Light Company
Riviera Plant

DRAFT Permit No.: 0990042-001-AV
Facility ID No.: 0990042
SIC Nos.: 49, 4911
Project: Initial Title V Air Operation Permit

This permit is for the operation of the Riviera Plant. This facility is located at 200-300 Broadway, Riviera Beach, Palm Beach County; UTM Coordinates: Zone 17, 594.249 km East and 2960.632 km North; Latitude: 26° 45' 55" North and Longitude: 80° 03' 09" West.

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

Referenced attachments made a part of this permit:
Appendix U-1, List of Unregulated Emissions Units and/or Activities
Appendix E-1, List of Exempt Emissions Units and/or Activities
Appendix TV-1, Title V Conditions (version dated 8/11/97)
Appendix SS-1, Stack Sampling Facilities (version dated 10/07/96)
Table 297.310-1, Calibration Schedule (version dated 10/07/96)
Phase II Acid Rain Application/Compliance Plan received 12/6/95
Alternate Sampling Procedure: ASP Number 97-B-01
Order Granting Petition for Reduced Frequency of Particulate Testing

Effective Date: January 1, 1998
Renewal Application Due Date: July 5, 2002
Expiration Date: December 31, 2002

Howard L. Rhodes, Director
Division of Air Resources Management

HLR/sms/sd

DRAFT Permit No.: 0990042-001-AV

Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of two fossil fuel steam generators, Unit 3 and Unit 4, each rated at 300 megawatts (MW) (315 MW gross capacity) output. The steam generators each burn a variable combination of No. 6 fuel oil, No. 2 fuel oil, natural gas, propane, used oil from FPL operations, and expired fuel oil samples from FPL's Central laboratory, discharging pollutants through a stack 298 feet above ground level. Each unit is a Foster-Wheeler outdoor type boiler, equipped with low NOx burners and Research-Cotrell multiple cyclones with ash reinjection, with a General Electric steam turbine that drives an oil and hydrogen-cooled 300 MW class generator with capability of 315 MW.

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

The facility had at one time operated a 75 MW steam generating unit, Unit 2, which is no longer in service. This unit was last operated for power production in 1985. Its operating permit was surrendered by letter dated July 7, 1997.

Based on the initial Title V permit application received June 12, 1996, this facility is a major source of hazardous air pollutants (HAPs).

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

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

Unregulated Emissions Units and/or Activities	
005	Painting and solvent cleaning
006	Emergency diesel generator, and mobile equipment and engines

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

Subsection C. Relevant Documents.

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

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

These documents are on file with the permitting authority:
Initial Title V Permit Application received June 12, 1996
Additional Information Request dated April 24, 1997
Additional Information Response received July 14, 1997
Letter dated March 31, 1997, changing the Responsible Official

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-1, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-1, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}

2. Not Federally Enforceable. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]

3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rule 62-296.320(4)(b)1. & 4, F.A.C.]

4. Prevention of Accidental Releases (Section 112(r) of CAA). If required by 40 CFR 68, the permittee shall submit to the implementing agency:
a. a risk management plan (RMP) when, and if, such requirement becomes applicable; and
b. certification forms and/or RMPs according to the promulgated rule schedule.
[40 CFR 68]

5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.
[Rule 62-213.440(1), F.A.C.]

6. Exempt Emissions Units and/or Activities. Appendix E-1, List of Exempt Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6), and 62-4.040(1)(b), F.A.C.]

7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. The owner or operator shall:
a. Tightly cover or close all VOC or OS containers when they are not in use.
b. Tightly cover all open tanks which contain VOC or OS when they are not in use.
c. Maintain all pipes, valves, fittings, etc., which handle VOC or OS in good operating condition.
d. Immediately confine and clean up VOC or OS spills and make sure wastes are placed in closed containers for reuse, recycling or proper disposal.
[Rule 62-296.320(1)(a), F.A.C.]

8. Not Federally Enforceable. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

a. The facility constructs temporary sandblasting enclosures when necessary, in order to perform sandblasting on fixed plant equipment.
b. Maintenance of paved areas as needed.
c. Regular mowing of grass and care of vegetation.
d. Limiting access to plant property by unnecessary vehicles.
e. Bagged chemical products are stored in weather-tight buildings until they are used.
f. Spills of powdered chemical products are cleaned up as soon as practicable.
g. Vehicles are restricted to slow speeds on the plant site.

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

9. When appropriate, any recording, monitoring or reporting requirements that are time-specific shall be in accordance with the effective date of this permit, which define day one.
[Rule 62-213.440, F.A.C.]

10. Submittals. All reports, tests, notifications or other submittals required by this permit shall be submitted to the Palm Beach County Health Department's Air Section, and copies of those submittals shall be sent to the Department of Environmental Protection, Southeast District Office, Air Section. Addresses and telephone numbers are:

Palm Beach County Health Department
Air Section
PO Box 29
West Palm Beach, FL 33401
Phone: 561/355-3070

Department of Environmental Protection
Southeast District Office, Air Section
PO Box 15425
West Palm Beach, FL 33416
Phone: 561/681-6600

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

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Operating Permits Section
61 Forsyth Street
Atlanta, GA 30303
Phone: 404/562-9099
Fax: 404/562-9095

Section III. Emissions Unit(s) and Conditions.

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

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

Fossil fuel fired steam generators Unit 3 and Unit 4 are each nominal 300 megawatt (315 MW gross capacity) (electric) steam generators designated as Riviera Plant Unit 3 and Unit 4, respectively. The emissions units are fired on a variable combination of No. 6 fuel oil, No. 2 fuel oil, natural gas, propane, used oil from FPL operations, and expired fuel oil samples from FPL's Central laboratory. When firing fuel oil, the maximum heat input for each boiler is 3050 mmBtu per hour, and when firing natural gas, the maximum heat input for each boiler is 3260 mmBtu per hour.

Each emissions unit consists of a boiler which drives a turbine generator. Emissions are controlled with low NOx burners and multiple cyclones with ash reinjection. Each unit is equipped with a 298 foot stack.

{Permitting note(s): These emissions units are regulated under Acid Rain, Phase II; and Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input. Fossil fuel fired steam generator Unit 3 began commercial operation in 1962 and fossil fuel fired steam generator Unit 4 began commercial operation in 1963. These emissions units may inject additives such as magnesium oxide, magnesium hydroxide and related compounds into each boiler.}

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

Essential Potential to Emit (PTE) Parameters

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

Unit No.	mmBtu/hr Heat Input*	Fuel Type
3	3260 3050	Natural Gas No. 2 or 6 Fuel Oil
4	3260 3050	Natural Gas No. 2 or 6 Fuel Oil

* When a blend of fuel oil and natural gas are burned, the heat input is prorated based upon the percent heat input of each fuel.

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.405, F.A.C., Revised Operation Permits AO 50-206721 and AO 50-206722, Issued August 2, 1993]

A.2. Emissions Unit Operating Rate Limitation After Testing. Emissions units may be limited to the operating rate or conditions tested. See specific conditions **A.25** and **A.26** of this permit. [Rule 62-297.310(2), F.A.C.]

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A.3. Methods of Operation. Fuels.

a. Startup: The only fuels allowed to be burned are any combination of natural gas or fuel oil, except propane may be utilized for ignition of the main fuel.
b. Normal: The only fuels allowed to be burned are any combination of No. 6 fuel oil, No. 2 fuel oil, natural gas, propane, on-specification used oil from FPL operations, and expired fuel oil samples from FPL's Central laboratory.

[Rule 62-213.410, F.A.C.; AO 50-206721, Specific Conditions 1 and 3; AO 50-206721, Specific Conditions 1 and 3]

A.4. Hours of Operation. The emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

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

A.5. Visible Emissions. Visible emissions shall not exceed 40 percent opacity. Emissions units governed by this visible emissions standard shall compliance test for particulate matter emissions annually.
[Rule 62-296.405(1)(a), F.A.C.; and OGC Case No. 83-0587 & 83-0588, Order dated April 24, 1984.]

A.6. Visible Emissions - Soot Blowing and Load Change. Visible emissions shall not exceed 60 percent opacity during the 3-hours in any 24 hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

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

Visible emissions above 60 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emissions allowed by this condition.
[Rule 62-210.700(3), F.A.C., Note: these units have operational continuous opacity monitors.]

A.7. Particulate Matter. Particulate matter emissions shall not exceed 0.1 pound per million Btu heat input , as measured by applicable compliance methods.
[Rule 62-296.405(1)(b), F.A.C.]

A.8. Particulate Matter - Soot Blowing and Load Change. Particulate matter emissions shall not exceed an average of 0.3 pound per million Btu heat input during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.
[Rule 62-210.700(3), F.A.C.]

A.9. Sulfur Dioxide. Sulfur dioxide emissions shall not exceed 2.75 pounds per million Btu heat input, as measured by applicable compliance methods. Compliance shall be based on the total heat input from all liquid and gaseous fuels burned. The sulfur dioxide emission limitation shall apply at all times including startup, shutdown, and load change, but shall not apply during malfunction provided best operational practices to minimize emissions are adhered to and the

duration of excess emissions are minimized and does not exceed two hours in any 24 hour period.
[Rules 62-213.440 and 62-296.405(1)(c)1.j., F.A.C.]

A.10. Nitrogen Oxides. Nitrogen oxides emissions shall not exceed 0.50 pounds per million Btu while firing natural gas, and 0.62 pounds per million Btu while firing oil. Compliance shall be demonstrated based on a 30-day rolling average as measured by a CEMS. The CEMS must meet the performance specifications contained in 40 CFR 60, Appendix B, or 40 CFR 75.
[Rules 62-296.570(4)(a)4. and (4)(b)3., F.A.C., Revised Operation Permits AO 50-206721 and AO 50-206722, Issued August 2, 1993]

Excess Emissions

A.11. 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.12. 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.13. 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

A.14. Annual Tests Required. Except as provided in specific conditions **A.17** through **A.19** of this permit, emission testing for particulate emissions and visible emissions shall be performed annually, no later than September of each year, except for units that are not operating because of scheduled maintenance outages and emergency repairs, which will be tested within thirty days of returning to service.
[Rules 62-4.070(3) and 62-213.440, F.A.C.]

A.15. Sulfur Dioxide. The owner or operator of the emission units shall demonstrate compliance with the sulfur dioxide limit of specific condition **A.9** of this permit by the following:

a. Through the use of a continuous emission monitoring system (CEMS) installed, calibrated, operated and maintained in accordance with the quality assurance requirements of 40 CFR 75, adopted and incorporated by reference in Rule 62-204.800, F.A.C. A Relative Accuracy Test Audit of the SO_2 CEMS shall be conducted no less than annually. Compliance shall be demonstrated based on a 3-hour rolling average.
b. In the event the CEMS becomes temporarily inoperable or interrupted, the fuels and the maximum fuel oil to natural gas firing ratio that shall be used is limited to that which was last used to demonstrate compliance prior to the loss of the CEMS, or the emissions

units shall fuel switch and be fired with a fuel oil containing a maximum sulfur content of 2.5%, by weight, or less.

c. When burning 100% fuel oil, the emissions units shall be fired with a fuel oil containing a maximum sulfur content of 2.5%, by weight, or less.

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

A.16. 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.]

A.17. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid fuel for more than 400 hours other than during startup.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

a. Did not operate; or

b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions, if there is an applicable standard;

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 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

c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid fuel, other than during startup, for a total of more than 400 hours.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

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

A.18. When VE Tests Not Required. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

a. only gaseous fuel(s); or

b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or

c. only liquid fuel(s) for less than 400 hours per year.

[Rule 62-297.310(7)(a)4., F.A.C.]

A.19. When PM Tests Not Required. Annual and permit renewal compliance testing for particulate matter emissions is not required for these emissions units while burning:

a. only gaseous fuel(s); or

b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or

c. only liquid fuel(s) for less than 400 hours per year.

[Rules 62-297.310(7)(a)3. & 5., F.A.C.; and, ASP Number 97-B-01.]

Test Methods and Procedures

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

A.20. Visible emissions. The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. A transmissometer may be used and calibrated according to Rule 62-297.520, F.A.C. See specific condition **A.21** of this permit.
[Rule 62-296.405(1)(e)1., F.A.C.]

A.21. DEP Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

1. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.
2. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:
    a. For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.
    b. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

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

A.22. Particulate Matter. The test methods for particulate emissions shall be EPA Methods 17, 5, 5B, or 5F, incorporated by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen based F-factor, computed according to EPA Method 19, is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17. Particulate testing shall be conducted in accordance with the requirements of specific conditions **A.25** and **A.26** of this permit.
[Rules 62-213.440, 62-296.405(1)(e)2., and 62-297.401, F.A.C.]

A.23. Sulfur Dioxide. The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedences of the sulfur dioxide emissions limiting standard are occurring. The permittee may use the EPA test methods,

referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, **the permittee shall demonstrate compliance using CEMS for sulfur dioxide. See specific condition A.15 of this permit.**
[Rules 62-213.440 and 62-296.405(1)(c)3. and (1)(e)3., F.A.C.]

A.24. 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.]

A.25. Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

A.26. Operating Conditions During Testing - PM and VE. Compliance testing during sootblowing and steady-state operation for particulate matter and visible emissions shall be conducted at least once annually, if liquid fuel is fired for more than 400 hours. A visible emissions test shall be conducted during one run of each particulate matter test. Testing shall be conducted as follows:

a. When Burning Fuel Oil Up To 2.5% Sulfur. When only fuel oil containing less than or equal to 2.5% sulfur, by weight, is fired (or co-fired with natural gas) in an emissions unit, particulate matter and visible emissions tests during sootblowing and steady-state operation shall be performed on such emissions unit while firing solely fuel oil containing at least 90% of the average sulfur content of the fuel oils fired in the previous 12 month period, except that such test shall not be required to be performed during any year that testing is performed in accordance with specific condition **A.26.b.**
b. When Burning Fuel Oil Greater Than 2.5% Sulfur. If fuel oil containing greater than 2.5% sulfur, by weight, is co-fired with natural gas in an emissions unit, particulate matter and visible emissions tests during sootblowing and steady-state operation shall be performed as soon as practicable, but in no event more than 60 days after firing such fuel oil, while co-firing such oil with the appropriate proportion of natural gas required to maintain SO_2 emissions between 90 to 100% of the SO_2 emission limit (corresponding to

2.475 and 2.75 lb/mmBtu heat input). Following successful completion of such PM and VE testing, further PM and VE testing shall not be required during the next 12 months unless fuel oil is fired that contains greater than 0.20% sulfur above the percentage sulfur concentration fired during the most recent co-firing test. If fuel oil is co-fired containing greater than 0.20% sulfur above the percentage sulfur concentration fired during the most recent co-firing test, additional PM and VE tests shall be performed as described above as soon as practicable, but in no event more than 60 days after firing such higher sulfur fuel oil.

[Rules 62-4.070(3), 62-213.440, 62-296.405(1)(c)3. and 62-297.310(7)(a)9., F.A.C.]

Record Keeping and Reporting Requirements

A.27. Fuel Records. The owner or operator shall create and maintain for each emission unit hourly records of the amount of each fuel fired, the ratio of fuel oil to natural gas if co-fired, and the heating value and sulfur content of each fuel fired. These records must be of sufficient detail to identify the testing requirements of specific condition **A.27**, and, when applicable, demonstrate compliance with the requirements of condition **A.15**, paragraphs b and c, of this permit. Fuel oil heating value and sulfur content shall be determined by taking a daily sample of the fuel fired, combining those samples into a monthly composite, and analyzing a representative sample of the composite. Analysis for sulfur content shall be performed using one of ASTM D2622-94, ASTM D4294-90(95), ASTM D1552-95, ASTM D1266-91, both ASTM D4057-88 and ASTM D129-95, or the latest edition(s). Comparison of the as-fired fuel oil sulfur content shall be made and recorded monthly upon receipt of each monthly composite analysis.
[Rules 62-4.070(3), 62-213.410, 62-213.440 and 62-296.405(1)(c)3., F.A.C.]

A.28. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.
[Rule 62-297.310(3), F.A.C.]

A.29. Applicable Test Procedures.

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

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

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

(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (attached to this permit).
(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.
[Rule 62-297.310(4), F.A.C.]

A.30. 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.]

Record Keeping and Reporting Requirements

A.31. Excess Emissions - Malfunctions. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Palm Beach County Health Department, Air Section, in accordance with Rule 62-4.130, F.A.C. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Palm Beach County Health Department, Air Section.
[Rule 62-210.700(6), F.A.C.]

A.32. Excess Emissions - Reports. Submit to the Palm Beach County Health Department, Air Section, a written report of emissions in excess of emission limiting standards as set forth in Rule 62-296.405(1), F.A.C., for each calendar quarter. The nature and cause of the excess emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of five years.
[Rules 62-213.440 and 62-296.405(1)(g), F.A.C.]

A.33. Test Reports.
(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Palm Beach County Health Department, Air Section, on the results of each such test.
(b) The required test report shall be filed with the Palm Beach County Health Department, Air Section, as soon as practical but no later than 45 days after the last sampling run of each test is completed.
(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Palm Beach County Health Department, Air Section, to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.

4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

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

A.34. Fuel Analyses Report. The owner or operator shall, by the fifteenth day of each month, submit to the Palm Beach County Health Department, Air Section, a report of fuel analyses that are representative of each fuel received in the preceding month. The report shall identify the quantity of each fuel received and document the heating value, the density or specific gravity, and the percent sulfur content by weight of each fuel.
[Rule 62-4.070(3) and 62-213.440, F.A.C., AO 50-206721 Specific Condition 3, AO 50-206722 Specific Condition 3]

Miscellaneous Conditions

A.35. Used Oil. Burning of on-specification used oil is allowed at this facility in accordance with all other conditions of this permit and the following additional conditions:

a. On-specification Used Oil Allowed as Fuel: This permit allows the burning of used oil fuel meeting EPA "on-specification" used oil specifications, with a PCB concentration of less than 50 ppm, originating from FPL operations. Used oil that does not meet the specifications for on-specification used oil shall not be burned at this facility.

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

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

b. Quantity Limited: The maximum total quantity of used oil that may be burned in both emissions units is 1.5 million gallons in any consecutive 12-month period.

c. Used Oil Containing PCBs Not Allowed: Used oil containing a PCB concentration of 50 or more ppm shall not be burned at this facility. Used oil shall not be blended to meet this requirement.

d. PCB Concentration of 2 to less than 50 ppm: On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall be burned only at normal source operating temperatures. On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall not be burned during periods of startup or shutdown.

e. Testing Required: The owner or operator shall sample and analyze each batch of used oil to be burned for the following parameters:

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

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

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

(1) The gallons of on-specification used oil received and burned each month. (This record shall be completed no later than the fifteenth day of the succeeding month.)

(2) The total gallons of on-specification used oil burned in the preceding consecutive 12-month period. (This record shall be completed no later than the fifteenth day of the succeeding month.)
(3) Results of the analyses required above.

g. Reporting Required: The owner or operator shall submit, with the Annual Operation Report form, the analytical results and the total amount of on-specification used oil burned during the previous calendar year.

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

A.36. Burning of Expired Fuel Oil Samples. The burning of bottles made from high density polyethylene (HDPE) containing expired fuel oil samples from FPL facilities that were retained after analysis by FPL's Central Laboratory shall be permitted under the following conditions:

a. The total annual amount of expired fuel oil samples burned shall not exceed 2.0 barrels of fuel oil.
b. The total annual amount of HDPE shall not exceed 80 pounds.
c. The owner or operator shall submit, with the Annual Operation Report form, the total amount of expired fuel oil samples and HDPE burned during the previous calendar year.

[Rule 62-4.070(3), F.A.C., AO 50-206721, AO 50-206722, and applicant request in Title V application received June 12, 1996]

Section IV. This section is the Acid Rain Part.

Operated by: Florida Power and Light Company
ORIS code: 0619

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

The emissions unit(s) listed below are regulated under Acid Rain, Phase II.

E.U. ID No.	Brief Description
002*	Fossil Fuel Steam Generator, Unit 2*
003	Fossil Fuel Steam Generator, Unit 3
004	Fossil Fuel Steam Generator, Unit 4

* Note that Unit 2 is not permitted by this permit to operate. It is included in this section to account for allowance allocations assigned to Unit 2.

A.1. The Phase II permit application(s) submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain unit(s) must comply with the standard requirements and special provisions set forth in the application(s) listed below:

a. DEP Form No. 62-210.900(1)(a), dated July 1, 1995.

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

A.2. Sulfur dioxide (SO_2) allowance allocations for each Acid Rain unit are as follows:

E.U. ID No.	EPA ID	Year	2000	2001	2002
002	ID No. 01 PRV2	**SO2 allowances, under Table 2 or 3 of 40 CFR Part 73**	92*	92*	92*
003	ID No. 02 PRV3	**SO2 allowances, under Table 2 or 3 of 40 CFR Part 73**	3542*	3542*	3542*
004	ID No. 03 PRV4	**SO2 allowances, under Table 2 or 3 of 40 CFR Part 73**	3514*	3514*	3514*

* The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 or 3 of 40 CFR 73.

A.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 increase 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.]

A.4. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year. {See condition No. 51., Appendix TV-1, Title V Conditions}
[Rule 62-214.420(11), F.A.C.]

A.5. Comments, notes, and justifications: None