

-B/S-



RECEIVED

DEC 27 2000

December 21, 2000

BUREAU OF AIR REGULATION

Scott Sheplak  
Administrator - Title V Permits  
State of Florida  
Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

**Re: Courtesy Notification: Title V Permit No.: 0110037-001AV,  
Lauderdale Combined Cycle Power Plant,  
E.U. ID No. 035, 036, 037, 038**

Dear Scott:

Pursuant to our telephone conversation today, FPL is providing courtesy notification to inform the agencies of a temporary activity in support of the combined cycle units at the Lauderdale Plant.

The combined cycle units at the Lauderdale Plant are planned to be shut down for several periods during the first quarter of 2001 due to the unprecedented high price of natural gas. When the units are restarted from cold shutdown, a temporary auxiliary boiler will be used to provide steam for the turbine seals, as there will be no other source of steam on site. The boiler is expected to be on site approximately three months, and operational for approximately twenty cold starts of 6-8 hours duration each.

The auxiliary boiler is capable of firing natural gas or #2 distillate, rated at 14.6 mmbtu/hr and 12.4 mmbtu/hr respectively. Because of the low firing rate and minimal utilization, FPL understands that the boiler falls within the Categorical Exemptions from permitting referenced in 62-210.300(3)(a)21, as confirmed by our telephone discussion today.

Thank you for your assistance in this matter, and, if you should have any questions, please do not hesitate to contact me at (561) 691-2877.

Very truly yours,

Kevin Washington  
Senior Environmental Specialist  
Florida Power and Light Company

**Cc: Tom Tittle**

State of Florida  
Department of Environmental Protection  
Southeast Florida District  
400 Congress Ave.  
P.O.Box 15425  
West Palm Beach, Fl. 33416

**Daniela Banu**

Broward County DPEP  
218 SW 1st Ave.  
Ft Lauderdale, Fl. 33301

Ccs: FPL

Rudy Sanchez  
Rick Blomgren  
K. Pascale  
File

file



FPL

ENVIRONMENTAL SERVICES DEPARTMENT  
P.O. BOX 14000  
JUNO BEACH, FL 33408

FAX COVER SHEET

DATE: 12/21/00

SEND TO: SCOTT SHEPLAK

COMPANY: FDEP

PHONE NUMBER: \_\_\_\_\_

FAX NUMBER: 850 922-6979

=====

FROM: KEVIN WASHINGTON

PHONE NUMBER: (561) 691-7877

FAX NUMBER: (561) 691-7070 49

NUMBER OF PAGES (Including cover sheet): \_\_\_\_\_

COMMENTS / INSTRUCTIONS:

SCOTT,

~~PA~~ THANKS

[Signature]

12.4 mmbtu/hr (160 hrs) (gallons/mmBTU <sup>0.137030</sup>) = 14,479 gallons  
< 33,000 gallons



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

December 21, 2000

Scott Sheplak  
Administrator - Title V Permits  
State of Florida  
Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

**Re: Courtesy Notification: Title V Permit No.: 0110037-001AV,  
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Thank you for your assistance in this matter, and, if you should have any questions, please do not hesitate to contact me at (561) 691-2877.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Kevin Washington', is written over a horizontal line.

Kevin Washington  
Senior Environmental Specialist  
Florida Power and Light Company

**Cc: Tom Tittle**

State of Florida  
Department of Environmental Protection  
Southeast Florida District  
400 Congress Ave.  
P.O.Box 15425  
West Palm Beach, Fl. 33416

**Daniela Banu**

Broward County DPEP  
218 SW 1st Ave.  
Ft Lauderdale, Fl. 33301

file-

DEP ROUTING AND TRANSMITTAL SLIP	
TO: (NAME, OFFICE, LOCATION) 3. _____	
1. <u>Mike Harley</u>	4. _____
2. _____	5. _____
PLEASE PREPARE REPLY FOR: <input type="checkbox"/> SECRETARY'S SIGNATURE <input type="checkbox"/> DIV/DIST DIR SIGNATURE <input type="checkbox"/> MY SIGNATURE <input type="checkbox"/> YOUR SIGNATURE <input type="checkbox"/> DUE DATE <u>10/27/00</u> ACTION/DISPOSITION <input type="checkbox"/> DISCUSS WITH ME <input type="checkbox"/> COMMENTS/ADVISE <input type="checkbox"/> REVIEW AND RETURN <input type="checkbox"/> SET UP MEETING <input type="checkbox"/> FOR YOUR INFORMATION <input type="checkbox"/> HANDLE APPROPRIATELY <input type="checkbox"/> INITIAL AND FORWARD <input type="checkbox"/> SHARE WITH STAFF <input type="checkbox"/> FOR YOUR FILES	COMMENTS: <p>What's your opinion on this? Is an ASP for this needed?</p> <p style="text-align: center;"> <b>RECEIVED</b>              Bureau of Air Monitoring &amp; Mobile Sources              OCT - 5 2000           </p> <p>Amend AC for an initial VOC Test only. Marty 12/13</p>
FROM: <u>Scott Sheplek</u>	DATE: <u>10/3/00</u> PHONE: _____

Scott -file-



FPL

September 21, 2000

RECEIVED

OCT 02 2000

BUREAU OF AIR REGULATION

Clair H. Fancy  
Chief - Bureau of Air Regulation  
State of Florida  
Department of Environmental Protection  
2600 Blair Stone Road  
Mail Station #5505  
Tallahassee, FL 32399-2400

**Re: Administrative Change of Title V Permit No.: 0110037-001AV,  
Lauderdale Power Plant, E.U. ID Nos. 035-038, Combined Cycle Combustion Turbine Units  
CT4A, CT4B, CT5A, & CT5B**

Dear Mr. Fancy:

FPL would like to request a change to the Lauderdale Plant Title V permit referenced above, to make it more consistent with the Title V permit governing similar combined cycle units at FPL's Martin Plant regarding VOC testing frequency.

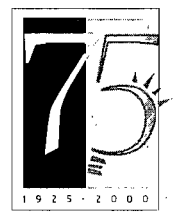
Recent discussions with Mike Harley indicate FDEP support for removing the annual VOC testing requirement at the Lauderdale Plant combustion turbines. The historically very low VOC levels (typically, less than one half PPM) lend credence to the contention that annual testing adds little, if any, value. The Martin Plant Title V Permit, Test Methods and Procedures, Page 30, Specific Condition B.27: requires an initial VOC test and no annual testing thereafter [Attachment No.1].

FPL would like to propose the language in the Lauderdale Title V permit, Page 11, Test Methods and Procedures, Specific Condition A.19 be changed to delete the annual requirement for VOC testing [Attachment No. 2]. In addition, Table2-1 Summary of Compliance Requirements should be changed to an initial VOC test and no annual testing [Attachment No.3]. The initial VOC tests were conducted on the Lauderdale units 4A, 4B, 5A, and 5B between May 18<sup>th</sup> and August 2<sup>nd</sup> of 1993. The most recent VOC tests were conducted September 18 & 19, 2000.

Thank you for your assistance in this matter, and, if you should have any questions, please do not hesitate to contact Kevin Washington at (561) 691-2877.

Very truly yours,

Rudy Sanchez  
PGBU Broward - Plant General Manager  
Florida Power and Light Company





**Cc: Scott Sheplak**

State of Florida  
Department of Environmental Protection  
2600 Blair Stone Road  
Mail Station #5505  
Tallahassee, FL 32399-2400

**Tom Tittle**

State of Florida  
Department of Environmental Protection  
Southeast Florida District  
400 Congress Ave.  
P.O.Box 15425  
West Palm Beach, Fl. 33416

**Daniela Banu**

Broward County DNRP  
218 SW 1st Ave.  
Ft Lauderdale, Fl. 33301

**Attachments: 2**

**B.27.** It is not necessary to plan the firing of a fuel solely to complete the initial compliance test, instead, the initial test may be postponed until such time as the untested fuel is ready for service. Initial (I) compliance tests shall be performed on each Combustion Turbine using both fuels. The stack test for each turbine shall be performed within 10% of the maximum heat rate input for the tested operating temperature. Annual (A) compliance tests shall be performed on each Combustion Turbine with the fuel(s) used for more than 400 hours in the preceding 12-month period. Tests shall be conducted using EPA reference methods, or equivalent, in accordance with the July 1, 1996 version of 40 CFR 60 Appendix A. (Note: based on information provided in the Title V Permit Application, initial testing using distillate oil has **not been done**.) See specific condition **B.3** for utilization of ambient temperature versus heat input curves during compliance testing.

Pollutant	EPA Reference Method	Initial testing		Annual testing	
		Gas	Oil	Gas	Oil
Particulate Matter	5 or 17		X		X
Sulfuric Acid Mist	8		X		
Visible Emissions	9	X	X	X	X
Carbon Monoxide	10	X	X	X	X
Nitrogen Oxides	20	X	X	X	X
Volatile Organic Compounds	18	X	X		
	<b>Test Method</b>				
Lead	EMTIC Test Method, or Method 7090, or 7091*		X		
Beryllium	EMTIC Test Method, or Method 104, or Method 7090, or 7091*		X		
Sulfur content	ASTM D 2880-96		X		X
	ASTM D 1072-90(94) E-1, ASTM D 3031-81(86), ASTM D 4084-94, or ASTM D 3246-92	X		X	
Mercury	40 CFR 61, Appendix B EPA Method 101	X	X		

\*Method 3040 sample extraction shall be used as described in the EPA solid waste regulations SW 846.

[PSD-FL-146, Specific Condition No. 10; and, applicant request letter dated July 28, 1998]

A.17. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

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

[40 CFR 60.11(d)]

### Test Methods and Procedures

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

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

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

\*or the latest edition.

DELETE

**Table 2-1, Compliance Requirements**

E.U. ID Nos.		Brief Description		Testing Time Frequency	Frequency Base Date **	Min. Compliance Test Duration	CMS*	See Permit Conditions
-035 -036 -037 -038		Combined-cycle Combustion Turbines with HRSGs						
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date **	Min. Compliance Test Duration	CMS*	See Permit Conditions	
VE	Oil Gas	EPA Method 9 EPA Method 9	Annual Annual	1-Oct 1-Oct	1 Hour 1 Hour		A.19 A.19	
PM/PM10	Oil	EPA Method 5 or 17	Annual	1-Oct	3 Hours		A.19	
SO2 (Sulfur Content of Fuel)	Oil Gas	ASTM D 2880-96 ASTM D 1072-90(94)E-1 or D 3031-81(86) or D 4084-94 or D 3246-92	Upon receipt of distillate oil Annual	1-Oct			A.19 A.19	
NOx	Oil Gas	EPA Method 20 EPA Method 20	Annual Annual	1-Oct 1-Oct		Yes Yes	A.19 A.19	
VOC	Oil Gas	EPA Method 25A EPA Method 25A	<del>INITIAL Annual</del> <del>INITIAL Annual</del>	<del>1-Oct</del> <del>1-Oct</del>			A.19 A.19	
CO	Oil Gas	EPA Method 10 EPA Method 10	Annual Annual	1-Oct 1-Oct			A.19 A.19	
CO2						Yes		
E.U. ID Nos.		Brief Description		Testing Time Frequency	Frequency Base Date **	Min. Compliance Test Duration	CMS*	See Permit Conditions
-003 -015		Banks of 12 Combustion Turbines						
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date **	Min. Compliance Test Duration	CMS*	See Permit Conditions	
VE	Oil Gas	EPA Method 9 EPA Method 9	Annual Annual	1-Oct 1-Oct	1 Hour 1 Hour		B.15 B.15	
NOx	Oil Gas	EPA Method 20 EPA Method 20	Annual Annual	1-Oct 1-Oct			B.16, B.17 B.16, B.17	
VOC	Oil Gas	EPA Method 25A EPA Method 25A	5 years 5 years	1-Oct 1-Oct			B.18 B.18	

**Notes:**

\*CMS [=] Continuous Monitoring System

\*\*Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.

Scott



RECEIVED

FEB 08 2000

January 27, 2000

BUREAU OF AIR REGULATION

Clair H. Fancy  
Chief - Bureau of Air Regulation  
State of Florida  
Department of Environmental Protection  
2600 Blair Stone Road  
Mail Station #5505  
Tallahassee, FL 32399-2400

**Re: Administrative Change of Title V Permit 0110037-001-AV  
Lauderdale Power Plant, Combined Cycle Units, ID Numbers 035 - 038  
Subtraction of Background VOC**

Dear Mr. Fancy:

On September 23, 1998 a number of issues regarding Title V permit consistency were discussed during a meeting in your offices between FDEP and FPL. Scott Sheplak, Tom Cascio of FDEP, Scott Busa, Vito Giarrusso, and Mary Archer of FPL covered a number of issues concerning potential administrative changes to FPL's Title V permits.

One issue involved FPL's Lauderdale Power Plant and testing of VOC. The Lauderdale permit does not allow for the subtraction of background VOC concentrations. This was overlooked in the permit review process. Other FPL permits allow for exclusion of the VOC background, such as the FPL Martin Plant.

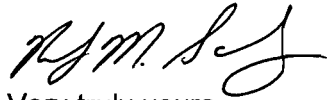
- FPL requests language to subtract the background VOC level from the test results, and that the Department consider a 5-year test frequency.  
This is consistent with the Martin Plant Site Certification Permit PA 89-27, page B-9, which includes language that the emission limit for VOC is "*Exclusive of background concentrations.*" [Attachment No. 1].

FPL suggests the following footnote to the Lauderdale permit to address exclusion of background VOC:

- Page 11, Test Methods and Procedures, Specific condition A.19 Table - Add footnote: " **\*\* Exclusive of background concentrations**", and place **\*\*** next to VOC under the Pollutant column. [Marked up copy attached - Attachment No. 2].
- Table 2-1, Compliance Requirements - Add footnote: " **\*\*\* Exclusive of background concentrations**", and place **\*\*\*** next to VOC under the Pollutant Name or Parameter column. In addition, FPL suggests that the Testing Time Frequency be changed to "5 Years" from "Annual". [Marked up copy attached - Attachment No. 3].

As discussed on September 23, we believe these to be administrative changes.

Thank you for your assistance in this matter, and, if you should have any questions, please do not hesitate to contact Kevin Washington at (561) 691-2877.

A handwritten signature in black ink, appearing to read 'Rudy Sanchez', written in a cursive style.

Very truly yours,

Rudy Sanchez  
PGBU Broward - Plant General Manager  
Florida Power and Light Company

Cc: Scott Sheplak - FDEP  
Daniela Banu - Broward County DNRP

Attachments: 3

Pollutant	Fuel	Basis	Emission Limitations <sup>d</sup>					
			Units 3 & 4		Units 5 & 6			
			lb/hr/CT	TPY <sup>a</sup>	lb/hr/CT	TPY <sup>a</sup>		
NOx	Gas	25 ppmvd @ 15% O <sub>2</sub>	177	comb. ]	3108	177	comb. ]	3108
	Oil	65 ppmvd @ 15% O <sub>2</sub>	461	tot. ]		461	tot. ]	
	CG	42 ppmvd @ 15% O <sub>2</sub>	392		6868	392		6868
VOC <sup>b</sup>	Gas	1.6 ppmvd	3	comb. ]	57	3	comb. ]	57
	Oil	6 ppmvd	11	tot. ]		11	tot. ]	
	CG	9 ppmvd	21.4		375	21.4		375
CO	Gas	30 ppmvd	94.3	comb. ]	871	94.3	comb. ]	871
	Oil	33 ppmvd	105.8	tot. ]		105.8	tot. ]	
	CG	33 ppmvd	134		2311	134		2311
PM/PM <sub>10</sub>	Gas		18	comb. ]	100	18	comb. ]	100
	Oil		60.6	tot. ]		60.6	tot. ]	
	CG		19		333	19		333
Pb	Gas		neg.	comb. ]	0.015	neg.	comb. ]	0.015
	Oil		0.015	tot. ]		0.015	tot. ]	
	CG		0.3		5.3	0.3		5.3
SO <sub>2</sub>	Gas		91.5	comb. ]	568	91.5	comb. ]	568
	Oil <sup>c</sup>		920	tot. ]		920	tot. ]	
	CG		834		14612	834		14612

a      Tons per year (TPY) emission limits listed for natural gas and oil combined apply as an emission cap based on limiting oil firing to an annual aggregate of 2,000 hours for the 4 CTs, with compliance to be demonstrated in annual operation reports.

b      Exclusive of background concentrations.

c      Sulfur dioxide emissions based on a maximum of 0.5 percent sulfur in oil for hourly emissions and an average sulfur content of 0.3 percent for annual emissions.

d      These limitations for Units 5 and 6 and coal gasification shall not be binding for subsequent BACT determinations.

e      → see modification PAB9-27A, August 1993

A.17. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

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

[40 CFR 60.11(d)]

### Test Methods and Procedures

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

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

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

\*or the latest edition.

\*\* EXCLUSIVE OF BACKGROUND CONCENTRATIONS



Table 2-1, Compliance Requirements

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

Notes:

\*CMS [=] Continuous Monitoring System

\*\*Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.

\*\*\* EXCLUSIVE OF BACKGROUND CONCENTRATIONS



**FPL**

BUREAU OF  
AIR REGULATION

MAR 19 1999

**RECEIVED**

March 9, 1999

Mr. Scott Sheplak, P.E., Title V Permitting  
Bureau of Air Regulation  
Department of Environmental Protection  
2600 Blair Stone Rd. Tallahassee, Florida 32399-2400

Re: **FPL Title V Permits Administrative Changes**  
**FPL Ft Lauderdale Power Plant**

Dear Mr. Sheplak:

This letter is provided as a summary of our understanding pertaining to actions concerning the Title V Permit of FPL's Ft. Lauderdale Power Plant. In our meeting with you and Tom Casio on September 23, 1998, the compliance method change for NOx from the steam tables to the use of the CEMs for compliance was agreed as a probable administrative change.

The compliance method change for NOx to the CEM from the steam to fuel ratio tables would allow for greater conservation of water. It is our understanding EPA guidance had allowed this in the past. You agreed to review the issue to determine if EPA approval would be required and anticipated it would be an administrative change. If this compliance change occurred the NOx testing would be removed from the permit.

Thank you for meeting with us on this issue. If you require any additional information, please do not hesitate to call me at 561-691-7057.

Sincerely,

Mary J. Archer  
Sr. Environmental Specialist  
Florida Power & Light Company

3/22/99 cc: Tom Casio



File

# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

September 29, 1998

Mr. Vito Giarrusso  
Sr. Environmental Specialist  
Florida Power & Light Company  
Environmental Services Department  
P.O. Box 14000  
Juno Beach, FL 33408

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

Dear Mr. Giarrusso:

We have reviewed your letter dated July 22, 1998 that requested two administrative changes to the FINAL Title V Permit for the Lauderdale plant. The first request, concerning the addition of a permitting note that addressed *permitted capacity* is acceptable, and will be incorporated into the permit document. The second request, that specified a change in the *monitoring method from the current steam-to-fuel-ratio to the Acid Rain NOx continuous emissions monitor system*, is being reviewed with our Emissions Monitoring Section, and may require U.S. EPA approval to implement. We will provide status on this item as it progresses.

If you have any questions concerning these matters, please contact Tom Cascio at 850/921-9526.

Sincerely,

A handwritten signature in black ink that reads "Scott M. Sheplak".

Scott M. Sheplak, P.E.

Administrator  
Title V Section

cc: Michael Harley



**FPL**

**RECEIVED**

**JUL 21 1998**

**BUREAU OF  
AIR REGULATION**

July 22, 1998

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: Permit No. 0110037-001-AV**  
**FPL Lauderdale Plant Final Title V Permit**

Dear Mr. Sheplak:

After reviewing the subject Title V permit, FPL has identified two issues which is administrative in nature and permit consistency needs to be addressed.

Page 8 Specific Condition A.3. Permitted Capacity. 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. We request a note be added to the permitted capacity condition for clarifying this, and an explanation that regular record keeping is not required for heat input be added to the statement of basis. The following specific changes are requested:

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, 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 the 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, to establish appropriate emission limits and to aid in determining future rule applicability.}

Page 12 Specific condition A.22., Page 13 Specific Condition A24. Monitoring of Operations And  
Page 14 Specific Condition A.31. Recordkeeping and Reporting Requirements. In Conversation  
with yourself and Rich Piper and as a result a follow up letter sent to your office dated 2/11/98 we  
requested a change in the monitoring method from the current steam-to-fuel-ratio to the Acid Rain  
NOx continuous emission monitor system (CEM). Our understanding was this change in monitoring  
methods was to be incorporated in this permit. As such we request this change be made. (Attached  
is the referenced letter)

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.

Sincerely,

*Vito Giarrusso*

Vito Giarrusso  
Sr. Environmental Specialist  
Florida Power & Light Company

7/28/98 cc: ~~Scott~~ Sheplek  
Tom Caseiro

bcc:

R. Sanchez

R. Adams

S. Busa

M. Archer

V. Giarrusso

PPE/PPE

GPA/JB

GPA/JB

JES/JB

JES/JB



February 11, 1998

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: Permit No. 0110037-001-AV  
FPL Lauderdale Plant Proposed Title V Permit

Dear <sup>Scott</sup> ~~Mr. Sheplak~~:

To follow up our conversation at the CAM rule conference regarding the Lauderdale Title V permit, this correspondence is to request a change in monitoring method from the current steam-to-fuel ratio monitoring to the Acid Rain NOx continuous emission monitor (CEM).

Attached for your reference is a copy of a memorandum from Region IX that pertains to this issue. Since this issue was originally addressed in this 1993 memo, the Stationary Source Compliance Division (SSCD) has also determined that the CEMS requirements of 40 CFR 75 are equivalent to, or more stringent than the requirements of 40 CFR 60 and EPA can accept Acid Rain CEMS as NSPS CEMS provided that the utility demonstrates compliance with all applicable NSPS regulations. Assuming that FDEP will adhere to the same bases for granting FPL a similar alternative monitoring method, FPL proposes to meet the requirements of the memorandum by using the NOx CEMS installed at the plant pursuant to 40 CFR 75 to comply with NOx limitations.

Several conditions were outlined in the memo which FPL will address as follows:

- Each turbine meets the emission limitation (STD) determined according to 40 CFR Part 60.332. The "Y" value for the applicable equation and supporting documentation should be provided by the applicant and the limitation for NOx emissions from pipeline quality natural gas should be fixed by EPA assuming the "F" value equals 0. The emission limitation shall be expressed in ppmv, dry, corrected to 15 percent O<sub>2</sub>.

The "Y" value for this equation are as follows:

Unit	"Y" Value - Test Data (kJ / kWh)	Equivalent emission rate (ppmv @ 15% O <sub>2</sub> )
4A	10.12	106.7
4B	10.22	105.7
5A	10.13	106.6
5B	10.14	106.5

The facility is supplied by pipeline quality natural gas, which does have an "F" value equal to 0, which equates to a standard of about 106 ppmvd @15% O<sub>2</sub>. The BACT emission limitation for the Lauderdale units is 264 lb / hr / CT at 75°F, based on a concentration of 42 ppmvd (PSD permit #PSD-FL-145). Since the limitations set by the BACT are much more stringent than those in 40 CFR 60 subpart GG, FPL considers the BACT limitations as the standard for the Lauderdale plant.

- *Each NOx CEMs meets the applicable requirements of 40 CFR 60.13, Appendix B and Appendix F for certifying, maintaining, operating and assuring quality of the system.*

As noted above, SSCD has accepted the certification, maintenance, operation and QA found in 40 CFR 75 as equivalent to 40 CFR 60. FPL currently has Part 75 systems in operation at the Lauderdale plant.

- *Each NOx CEMs must be capable of calculating NOx emissions concentrations corrected to 15% O<sub>2</sub> and ISO conditions.*

Since the BACT limits are expressed lb/hr/CT at 75°F, FPL believes the CEMS should be required to calculate emissions in this format. FPL intends to demonstrate compliance based on lb/hr/CT at 75°F. While NOx ppm @ 15% O<sub>2</sub> and ISO conditions was originally used to derive the lb/hr standard, it is not used in the calculation. Since we will be measuring lb/hr directly, we do not believe there is any value in adding the equipment necessary for this display on a continuous basis.

- *Monitor data availability shall be no less than 95 percent on a quarterly basis.*

This is not a problem; our monitor availability has historically been much better than this.

- *NOx CEMs should provide 4 data points for each hour and calculate a 1-hour average.*

Valid hours will be calculated based on 40 CFR 75 requirements, which in general do provide 4 data points for each hour, but also contain allowances for maintenance, calibrations, etc.

- *Each owner or operator of a NOx CEMs shall submit an excess emissions report according to the requirements of paragraph 60.13(h) and monitoring systems performance report and/or a summary report form to the Administrator on a quarterly basis, if excess emissions are determined, or semiannually. The report shall be postmarked by the 30th day following the end of each reporting period. Written reports shall include information required in paragraphs 60.7(c) and 60.7(d). This report shall also contain the content of nitrogen in fuel oil for each reporting period when oil is fired and a clearly calculated corresponding emissions limitation (STD).*

This is not a problem; the Lauderdale facility is already preparing a quarterly excess emissions report. We will make a modification so as to add the monitor availability information. An emission limit standard while burning oil has been established by our BACT limits well below the standard in 40 CFR 60 subpart GG and would not vary with fuel nitrogen. We don't believe it to be meaningful to also calculate a second, higher standard (STD) identified above.

- *Recordkeeping requirements shall follow the requirements specified in 40 CFR 60.7.*

No problem.

- *In addition, to upgrade EPA data, we recommend that the NOx CEMs shall be used to demonstrate compliance with the emission limitation on a continuous basis and that the quarterly report include the NOx mass emissions for the reported period as reported to the State.*

It is our desire to use the CEMS to demonstrate continuous compliance in a mass emission form, based on our BACT limits.



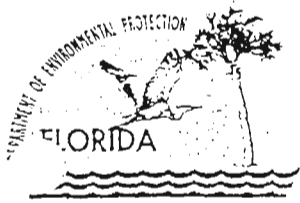
As we discussed, we believe these changes will provide more meaningful information to the Department, and could be incorporated into the changes to the Title V permit that will likely occur as a result of the current EPA Region IV intervention into the Title V permit for the Lauderdale facility.

Thank you for your prompt attention to the issues raised in this correspondence. Please do not hesitate to contact me at (561) 691-7058 if I may be of further assistance.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Rich Piper".

Rich Piper  
Sr. Environmental Specialist  
Florida Power & Light Company



# 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:

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

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-

Mr. R. Douglas Neeley

March 10, 1998

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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

Mr. R. Douglas Neeley

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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 ( $\pm$  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, 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<sub>2</sub> 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.

Mr. R. Douglas Neeley

March 10, 1998

Page 9 of 9

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



February 11, 1998

RECEIVED

FEB 16 1998

BUREAU OF AIR REGULATION

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: Permit No. 0110037-001-AV  
FPL Lauderdale Plant Proposed Title V Permit

Dear <sup>Scott</sup> ~~Mr. Sheplak~~:

To follow up our conversation at the CAM rule conference regarding the Lauderdale Title V permit, this correspondence is to request a change in monitoring method from the current steam-to-fuel ratio monitoring to the Acid Rain NOx continuous emission monitor (CEM).

Attached for your reference is a copy of a memorandum from Region IX that pertains to this issue. Since this issue was originally addressed in this 1993 memo, the Stationary Source Compliance Division (SSCD) has also determined that the CEMS requirements of 40 CFR 75 are equivalent to, or more stringent than the requirements of 40 CFR 60 and EPA can accept Acid Rain CEMS as NSPS CEMS provided that the utility demonstrates compliance with all applicable NSPS regulations. Assuming that FDEP will adhere to the same bases for granting FPL a similar alternative monitoring method, FPL proposes to meet the requirements of the memorandum by using the NOx CEMS installed at the plant pursuant to 40 CFR 75 to comply with NOx limitations.

Several conditions were outlined in the memo which FPL will address as follows:

- Each turbine meets the emission limitation (STD) determined according to 40 CFR Part 60.332. The "Y" value for the applicable equation and supporting documentation should be provided by the applicant and the limitation for NOx emissions from pipeline quality natural gas should be fixed by EPA assuming the "F" value equals 0. The emission limitation shall be expressed in ppmv, dry, corrected to 15 percent O2.

The "Y" value for this equation are as follows:

Unit	"Y" Value - Test Data (kJ / kWh)	Equivalent emission rate (ppmvd @ 15% O <sub>2</sub> )
4A	10.12	106.7
4B	10.22	105.7
5A	10.13	106.6
5B	10.14	106.5

The facility is supplied by pipeline quality natural gas, which does have an "F" value equal to 0, which equates to a standard of about 106 ppmvd @15% O<sub>2</sub>. The BACT emission limitation for the Lauderdale units is 264 lb / hr / CT at 75°F, based on a concentration of 42 ppmvd (PSD permit #PSD-FL-145). Since the limitations set by the BACT are much more stringent than those in 40 CFR 60 subpart GG, FPL considers the BACT limitations as the standard for the Lauderdale plant.

- *Each NO<sub>x</sub> CEMs meets the applicable requirements of 40 CFR 60.13, Appendix B and Appendix F for certifying, maintaining, operating and assuring quality of the system.*

As noted above, SSCD has accepted the certification, maintenance, operation and QA found in 40 CFR 75 as equivalent to 40 CFR 60. FPL currently has Part 75 systems in operation at the Lauderdale plant.

- *Each NO<sub>x</sub> CEMs must be capable of calculating NO<sub>x</sub> emissions concentrations corrected to 15% O<sub>2</sub> and ISO conditions.*

Since the BACT limits are expressed lb/hr/CT at 75°F, FPL believes the CEMS should be required to calculate emissions in this format. FPL intends to demonstrate compliance based on lb/hr/CT at 75°F. While NO<sub>x</sub> ppm @ 15% O<sub>2</sub> and ISO conditions was originally used to derive the lb/hr standard, it is not used in the calculation. Since we will be measuring lb/hr directly, we do not believe there is any value in adding the equipment necessary for this display on a continuous basis.

- *Monitor data availability shall be no less than 95 percent on a quarterly basis.*

This is not a problem; our monitor availability has historically been much better than this.

- *NO<sub>x</sub> CEMs should provide 4 data points for each hour and calculate a 1-hour average.*

Valid hours will be calculated based on 40 CFR 75 requirements, which in general do provide 4 data points for each hour, but also contain allowances for maintenance, calibrations, etc.

- *Each owner or operator of a NO<sub>x</sub> CEMs shall submit an excess emissions report according to the requirements of paragraph 60.13(h) and monitoring systems performance report and/or a summary report form to the Administrator on a quarterly basis, if excess emissions are determined, or semiannually. The report shall be postmarked by the 30th day following the end of each reporting period. Written reports shall include information required in paragraphs 60.7(c) and 60.7(d). This report shall also contain the content of nitrogen in fuel oil for each reporting period when oil is fired and a clearly calculated corresponding emissions limitation (STD).*

This is not a problem; the Lauderdale facility is already preparing a quarterly excess emissions report. We will make a modification so as to add the monitor availability information. An emission limit standard while burning oil has been established by our BACT limits well below the standard in 40 CFR 60 subpart GG and would not vary with fuel nitrogen. We don't believe it to be meaningful to also calculate a second, higher standard (STD) identified above.

- *Recordkeeping requirements shall follow the requirements specified in 40 CFR 60.7.*

No problem.

- *In addition, to upgrade EPA data, we recommend that the NO<sub>x</sub> CEMs shall be used to demonstrate compliance with the emission limitation on a continuous basis and that the quarterly report include the NO<sub>x</sub> mass emissions for the reported period as reported to the State.*

It is our desire to use the CEMS to demonstrate continuous compliance in a mass emission form, based on our BACT limits.

As we discussed, we believe these changes will provide more meaningful information to the Department, and could be incorporated into the changes to the Title V permit that will likely occur as a result of the current EPA Region IV intervention into the Title V permit for the Lauderdale facility.

Thank you for your prompt attention to the issues raised in this correspondence. Please do not hesitate to contact me at (561) 691-7058 if I may be of further assistance.

Very truly yours,



Rich Piper  
Sr. Environmental Specialist  
Florida Power & Light Company

2/16/98 cc: Scott Sheplek  
Tom Caseiro



# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

December 18, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. John Stanton  
Plant General Manager  
FP&L Lauderdale Plant  
Post Office Box 14000  
Juno Beach, Florida 33408

Re: EPA Objection to PROPOSED Title V Permit No. 0110037-002-AV  
Plant Name: FP&L - Lauderdale

Dear Mr. Stanton:

On December 12, the department received a timely written objection from the United States Environmental Protection Agency to the referenced proposed permit. A copy of EPA's objection is attached.

In accordance with Section 403.0872(8), Florida Statutes (F.S.), the department must not issue a final permit until the objection is resolved or withdrawn. Pursuant to Section 403.0872(8), F.S., the applicant may file a written reply to the objection within 45 days after the date on which the department serves the applicant with a copy of the objection. The written reply must include any supporting materials that the applicant desires to include in the record relevant to the issues raised by the objection. The written reply must be considered by the department in issuing a final permit to resolve the objection of EPA. Please submit any written comments you wish to have considered concerning the objection to Mr. Scott M. Sheplak, P.E., at the above letterhead address.

Pursuant to 40 CFR 70.8(c)(4) the department will have to resolve the objection by issuing a permit that satisfies EPA within 90 days of the objection, or EPA will assume authority for the permit. Since the department has been unable to resolve the issues associated with the objection, we recommend that you set up a meeting with EPA to resolve the objection. Please contact Mr. Douglas Neeley, Chief, Air & Radiation Technology Branch or Ms. Carla Pierce, Chief, Operating Source Section at 404/562-9105. Please advise us of the date and time of the meeting so that we can attend.

If you should have any other questions, please contact Mr. Scott M. Sheplak, P.E., at 850/921-9532.

Sincerely,

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

CHF/sms/k

Enclosures

cc: Rich Piper, FPL w/enclosures  
Pat Comer, OGC w/enclosures  
Douglas Neeley, USEPA w/o enclosures  
Carla Pierce, USEPA w/o enclosures  
Lynda Crum, USEPA w/o enclosures

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 is 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.

Date: 11/3/97 9:03:17 AM  
From: Elizabeth Walker TAL  
Subject: New Posting  
To: See Below

There is a new posting available on the Florida website.

FLORIDA POWER & LIGHT  
Lauderdale Plant

0110037002AV

Proposed

If you have any questions, please let me know!

Thanks,  
Elizabeth

To: adams yolanda  
To: pierce carla  
To: Barbara Boutwell TAL  
To: Scott Sheplak TAL  
To: Terry Knowles TAL  
To: gates kim  
CC: Tom Cascio TAL



October 1, 1997

**RECEIVED**

UCT 06 1997

BUREAU OF  
AIR REGULATION

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: Draft Permit No. 0110037-004-AV**  
**FPL Lauderdale Plant Initial Title V Permit**

Dear Mr. Sheplak:

After reviewing the subject draft Title V permit, FPL has identified several issues which need to be addressed. We plan to address them with you on Monday, October 6th at 9am via conference call.

**Permit Placard Page** - The facility mailing address has changed to:

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

**Facility Description** (page 2) - The second sentence should read: "Each combined-cycle unit consists of two combustion turbines (CT's) which each exhaust through a separate heat recovery heat **steam** generator (HRSG)." The fifth sentence should read: "Each combined-cycle unit has a net **summer continuous** capability of 430 MW".

In addition, in Subsection B, the Fuel Oil Storage Tank #'s 2, 3 and 5 may contain either diesel fuel or Jet A or a mixture of the two. We suggest the description be changed to "light distillate oil" which should be generic enough to cover everything we handle.

**Combined-Cycle Combustion Turbine Specific Conditions**

**Section III, Subsection A** - After the list of Emission Unit ID's, the descriptive paragraph, fourth sentence should read: "Unit 4 and Unit 5 each have a net **summer continuous** capability of 430 MW."

**Specific Condition A.7.** (page 8) - In the table provided, the Emission Limitations heading should only apply to the lb/hr/CT column and to the 4CTs (TPY) column. The concentration column should be labelled "Basis", and not be included in the Emissions Limitations category, in accordance with the initial PSD permit for the facility.

**Specific Condition A.7.** (page 9) - Sulfuric acid mist emissions ~~Sulfur dioxide~~ emissions are based on a maximum.....

**Specific Condition A.8.** (page 9) - The following allowable emissions, determined by BACT, are tabulated for PSD and inventory purposes:

**Specific Condition A.16.** (page 10) - Since the combustion turbines are new sources, are they subject to 62-210.700(2)?

**Specific Condition A.19 and A.20.** (page 11) - The operating rate during testing should be 95-100% of the target value at the ambient temperature during testing, pursuant to Department guidance, and a recent modification to the PSD permit (please refer to Attachment A for details).

**Specific Condition A.22** (page 12) - The Department has approved the steam-to-fuel monitoring systems currently utilized at the Lauderdale site, as meeting the requirements of 40 CFR 60.334(a).

**Specific Condition A.23(2).** (page 12) - Please note that the Lauderdale site has an approved Customized Fuel Monitoring Schedule which should be referenced in this Specific Condition.

**Specific Condition A.25.** (page 12) - The reference to 40 CFR 60 Appendix F should be stricken, based on earlier conversations between the department and FPL. A sentence requiring the performance of an annual RATA should be inserted instead.

**Specific Condition A.26. and A.27.** (page 13) - This Specific Condition is superfluous and may be removed. The Lauderdale site does not currently have Continuous Opacity Monitors, due to being fired predominantly on natural gas (opacity monitors were not required under the Acid Rain rules for emission units qualifying as "gas-fired units").

**Specific Condition A.28(2).** (page 14) - This Specific Condition does not apply, because the Lauderdale combined cycle units do not have opacity monitors.

**Specific Condition A.32.** (page 15) - This Specific Condition does not apply, because the Lauderdale combined cycle units do not have opacity monitors.

#### **Simple-Cycle Combustion Turbine Specific Conditions**

**Specific Condition B.1.** (page 19) - The heat input to each combustion turbine needs to be discussed.

**Specific Condition B.3.** (page 19) - We request that the term "light distillate oil" be used instead of "No. 2 fuel oil".

**Specific Condition B.14.** (page 21) - It appears that this Specific Condition and Specific Condition 22 are contradictory. We request that this Specific Condition be deleted in lieu of the language in Specific Condition 22.

**Specific Condition B.16.** (page 21) - This language appears to have been copied from the opacity testing language for the GT's in Specific Condition 14, which we are requesting to be deleted. The simple-cycle gas turbines have extremely low capacity factors (recently < 5%); furthermore not all the exhaust stacks are equipped for NOx sampling. FPL has historically

demonstrated compliance by sampling representative units once every five years. We suggest permit language as follows:

*"NOx emissions for the combustion turbines shall be tested every five (5) years by EPA Method 20 tests as described in 40 CFR 60, Appendix A (July 1, 1996) on any representative unit in each bank of the combustion turbines. Tests shall be conducted both while burning 100% natural gas and 100% distillate oil."*

**Specific Condition B.18.** (page 22) - FPL has historically demonstrated compliance on a representative unit in each bank of twelve combustion turbines. We suggest the following change to the Specific Condition:

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

**Specific Condition B.19.** (page 22) - The heat input to each combustion turbine needs to be discussed.

**Specific Condition C.2.** (page 26) - Actual meteorological conditions are not captured at the Lauderdale site. We request that the word "representative" be inserted in front of the word "meteorological" so that we may use data obtained from the nearest airport or other nearby sources.

**Table 1-1, Air Pollutant Standards and Terms** - In the table provided, the Emission Limitations heading should only apply to the lb/hr/CT column and to the 4CTs (TPY) column. The Standards column should be labelled "Basis", and not be included in the Emissions Limitations category, in accordance with the initial PSD permit for the facility.

**Table 2-1, Compliance Requirements** - In the table, for SO<sub>2</sub>, the testing frequency is listed as "daily" for the sulfur content of fuel. This should read "upon receipt of distillate oil", in accordance with 40 CFR 60.334(b)(1)

Thank you for your prompt attention to the issues raised in this correspondence. I look forward to discussing these issues with you on the afternoon of September 30th. Please do not hesitate to contact me at (561) 691-7058 if I may be of further assistance.

Very truly yours,



Richard Piper  
Sr. Environmental Specialist  
Florida Power & Light Company

10/9/97 cc: Scott Sheplek  
Don Cassio



RECEIVED

JUL 29 2002

BUREAU OF AIR REGULATION

July 24, 2002

Scott M. Sheplak, P.E.  
Administrator – Title V Permit Program  
Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

**Re: Administrative Change to add Additional Responsible Official to  
Lauderdale Plant - 0110037-001AV**

Dear Scott:

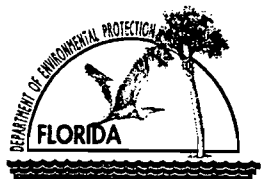
Enclosed is the Responsible Official Notification Form to add Mr. Rich Merrill as an Additional Responsible Official (R.O.) for the Lauderdale Plant. FPL requests that an administrative change be made to the permit referenced above to accommodate the addition of Mr. Merrill as an additional R.O.

Thank you for your assistance in this matter, and, if you should have any questions, please do not hesitate to contact me at (561) 691-2877.

Very truly yours,

Kevin Washington  
Senior Environmental Specialist  
Florida Power & Light Company

Enclosure: 1



# Department of Environmental Protection

## Division of Air Resource Management RESPONSIBLE OFFICIAL NOTIFICATION FORM

RECEIVED

JUL 29 2002

BUREAU OF AIR REGULATION

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	
2. Site Name: Lauderdale Plant	3. County: Broward
4. Title V Air Operation Permit/Project No. (leave blank for initial Title V applications): 0110037-001-AV	

### Notification Type (Check one or more)

<input type="checkbox"/> INITIAL:	Notification of responsible officials for an initial Title V application.
<input type="checkbox"/> RENEWAL:	Notification of responsible officials for a renewal Title V application.
<input checked="" type="checkbox"/> CHANGE:	Notification of change in responsible official(s). Effective date of change in responsible official(s) 7/20/02_____

### Primary Responsible Official

1. Name and Position Title of Responsible Official: Rudy Sanchez, Plant General Manager	✓ Done. 12-17-03 Bauer
2. Responsible Official Mailing Address: Organization/Firm: FPL Street Address: 4300 SW 42 <sup>nd</sup> Ave. City: Ft. Lauderdale State: FL Zip Code: 33314	
3. Responsible Official Telephone Numbers: Telephone: (954 )797 -1502 Fax: (954 )797 -5279	
4. Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> 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. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.	
5. Responsible Official Statement:  <i>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.</i>  _____ Signature	
_____ Date	7/19/02



**Additional Responsible Official**

1. Name and Position Title of Responsible Official: <u>Rich Merrill, Production Manager</u>
2. Responsible Official Mailing Address: Organization/Firm: FPL Street Address: 4300 SW 42 <sup>nd</sup> Ave. City: Ft. Lauderdale State: FL Zip Code: 33314
3. Responsible Official Telephone Numbers: Telephone: (954) 527 - 3518 Fax: (954) - 527-3636
4. Responsible Official Qualification ( <i>Check one or more of the following options, as applicable</i> ): <input checked="" type="checkbox"/> 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. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.

✓ Done.  
12-17-03  
Bmm

**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 ( <i>Check one or more of the following options, as applicable</i> ): <input type="checkbox"/> 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. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.

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File Copy - General



Florida Power & Light Company, P. O. Box 14000, Juno Beach, FL 33408-0420  
700 Universe Boulevard

June 4, 1998

Mr. Bruce Mitchell, Environmental Administrator  
Department of Environmental Protection  
2600 Blair Stone Road  
Mail Station 5505  
Tallahassee, Florida 32399-2400

RECEIVED

JUN 03 1998

BUREAU OF  
AIR REGULATION

**RE: FLORIDA POWER & LIGHT COMPANY ANNUAL EMISSION FEES - 1997**

Dear Mr. Mitchell:

In response to your fax dated June 3, 1998, summarized below are the adjustments made by FPL and your Office from the initial wire transfer payment on February 24, 1998 for our 1997 Annual Emission Fees.

Total Remitted by Wire Transfer on 2/24/98 \$1,865,081.59

Net Over-Payments by FPL (Wire vs Calculation Packages): (1,529.92)

Putnam Plant (\$1,536.92)  
Lauderdale Plant 7.00

Net Under-Payment by FPL (Adjustments made by FDEP): 348.66

Putnam - Over-payment due to inclusion of SO2 limitation on natural gas (\$ 173.82)

Fort Myers - Under-payment due to an incorrect computation for NOx Emissions 522.48

Total Adjusted 1997 FPL Annual Emission Fees: \$1,863,900.33

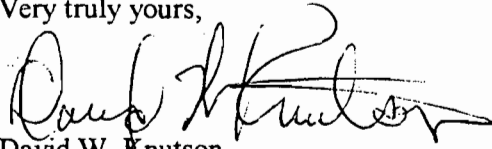
Net Over-Payment Due FPL: \$ 1,181.26

I hereby authorize your office to deduct the net under-payment by FPL in the amount of \$348.66 from the net amount overpaid by our original wire transfer. Also per your request is a signed Application for Refund Form which is attached.

Please remit the amount due FPL to my attention: Mr. David W. Knutson, Florida Power & Light Company, P. O. Box 14000, Juno Beach, Florida 33408-0420.

Please contact Mike Szybinski at (561) 691-2898 or Scott Busa at (561) 691-2889 if you have any questions.  
Thank you for your assistance in this matter.

Very truly yours,



David W. Knutson  
Manager Technical Services

DWK:mjs

cc: Richard Piper - JES/JB

Scott Busa - GPA/JB

File

Scott

Ed

Jonathan

} 6-9-98 *RPR*

6-9-98  
Original sent to  
F&H for processing  
BPN

**BEST AVAILABLE COPY**

DEP 14-081  
DBF AA-4

REFUND REQUEST #: 3972

APPLICATION FOR REFUND FORM  
THE STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

STATE OF FLORIDA, COUNTY OF \_\_\_\_\_

Pursuant to the provisions of Section 215.26, or Section \_\_\_\_\_\*, Florida Statutes, I hereby apply for a refund and request that a State Warrant be drawn in favor of:

NAME: FLORIDA POWER AND LIGHT  
ADDRESS: MR. RICH PIPER P.O. BOX 14000 JUNO BEACH, FL 33408-8801  
FEID OR SS NUMBER:  
AMOUNT: \$1,181.26 DEPOSIT DATE: 24-FEB-98 DEPOSIT: 22498  
DOCUMENT NUMBER: SYS RECEIPT#: 189131  
REV OBJECT CODE: 2275 TITLE V MAJOR SOURCE

which represents moneys I paid into the State Treasury subject to refund, and to substantiate such claim the following facts are submitted:

REASON FOR CLAIM: OVER PAYMENT

CERTIFIED TRUE AND CORRECT this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

*[Handwritten Signature]*  
\*  
Applicant's Signature

\*Must be completed if authority is other than Section 215.26, Florida Statutes.

(FOR AGENCY USE ONLY)

(1) Agency recommends denial of above claim based on the following facts, including statutory authority for collection:

OR

(2) Agency recommends approval of above claim and submits the following information to substantiate such claim. \$1,181.26 was originally deposited into the State Treasury, Receipt \_\_\_\_\_, dated \_\_\_\_\_.

NAME OF ACCOUNT: \_\_\_\_\_  
SAMAS ACCOUNT CODE  
3720203500137 \_\_\_\_\_ 00000000020000

Statutory Authority for Collection \_\_\_\_\_  
It is requested that payment be made from:  
NAME OF ACCOUNT: \_\_\_\_\_  
SAMAS ACCOUNT CODE  
3720203500137 \_\_\_\_\_ 00000022000000

CERTIFIED TRUE AND CORRECT this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

Signature and Title of Authorized Person

SECTION 215.26 STATES, IN PART: "APPLICATION FOR REFUNDS AS PROVIDED BY THIS SECTION SHALL BE FILED WITH THE COMPTROLLER, EXCEPT AS OTHERWISE PROVIDED HEREIN, WITHIN 3 YEARS AFTER THE RIGHT TO SUCH REFUND SHALL HAVE ACCRUED ELSE SUCH RIGHT SHALL BE BARRED." Three years is interpreted as meaning three years from the date of payment into State Treasury.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET, SW  
ATLANTA, GEORGIA 30303-8909

MAR 16 1998

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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

Best Available Copy



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET, SW  
ATLANTA, GEORGIA 30303-8909

*Clair*  
*Shu*

DEC 11 1997

RECEIVED

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

DEC 12 1997

AIR RESOURCES MANAGEMENT

RECEIVED

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

DEC 12 1997

BUREAU OF  
AIR REGULATION

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.<sup>1</sup> 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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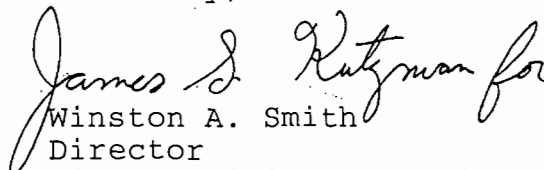
<sup>1</sup> See, e.g., 62 Fed. Reg. at 54904 ("Part 70 currently requires all title V operating permits to include monitoring to assure compliance with the permit. This includes all existing monitoring requirements as well as additional monitoring (generally referred to as 'periodic monitoring') if 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,

  
Winston A. Smith  
Director  
Air, Pesticides & Toxics  
Management Division

Enclosures

cc: Mr. Adalberto Alfonso  
Plant General Manager  
FPL - Turkey Point Plant  
P.O. Box 088801  
North Palm Beach, FL 33408

Mr. John Stanton  
Plant General Manager  
FPL - Port Everglades and Lauderdale Plants  
11770 U.S. Highway One  
North Palm Beach, FL 33408

Mr. W.T. Bethea  
Plant General Manager  
FPL - Putnam Plant  
11770 U.S. Highway One  
North Palm Beach, FL 33408

Mr. James A. Keener  
Plant General Manager  
FPL - Martin Plant  
11770 U.S. Highway One  
North Palm Beach, FL 33408

Mr. John M. Lindsay  
Plant General Manager  
FPL - Riviera Plant  
11770 U.S. Highway One  
North Palm Beach, FL 33408

Mr. J.M. Parent  
Plant General Manager  
FPL - Manatee Plant  
11770 U.S. Highway One  
North Palm Beach, FL 33408

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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> 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 is 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 is 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 is 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 is 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<sub>2</sub> 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 is 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 SO<sub>2</sub> 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<sub>2</sub> 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 is 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<sub>2</sub> 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<sub>2</sub> 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 is 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<sub>x</sub> 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, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

March 9, 1999

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MAR 15 1999

BUREAU OF AIR REGULATION

Mr. Scott Sheplak, P.E., Title V Permitting  
Bureau of Air Regulation  
Department of Environmental Protection  
2600 Blair Stone Rd. Tallahassee, Florida 32399-2400

Re: **FPL Title V Permits Administrative Changes**  
**FPL Ft Lauderdale Power Plant**

Dear Mr. Sheplak:

This letter is provided as a summary of our understanding pertaining to actions concerning the Title V Permit of FPL's Ft. Lauderdale Power Plant. In our meeting with you and Tom Casio on September 23, 1998, the compliance method change for NOx from the steam tables to the use of the CEMs for compliance was agreed as a probable administrative change.

The compliance method change for NOx to the CEM from the steam to fuel ratio tables would allow for greater conservation of water. It is our understanding EPA guidance had allowed this in the past. You agreed to review the issue to determine if EPA approval would be required and anticipated it would be an administrative change. If this compliance change occurred the NOx testing would be removed from the permit.

Thank you for meeting with us on this issue. If you require any additional information, please do not hesitate to call me at 561-691-7057.

Sincerely,

Mary J. Archer  
Sr. Environmental Specialist  
Florida Power & Light Company

3/16/99 cc: Tom Casio  
Scott Sheplak

Post-It® Fax Note	7671	Date	# of pages ▶ 1
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