

August 8, 1997

Mr. Tom Cascio State of Florida Department of Environmental Protection Division of Air Resources Management 2600 Blair Stone Road Tallahassee, FL 32399-2400

Re: FPL Manatee Plant

Title V Permit

Dear Mr. Cascio.



This correspondence is in response to Mr. Scott M. Sheplak's letter of May 13, 1997. Following are responses to each of the concerns raised in Scott's letter:

Facillity Information

- 1. Facillity Regulatory Classifications, Section A, page2, number 9, is marked that emissions units are subject to NESHAP. Please confirm that this was only marked because units at the facillity may be subject to some of the requirements of 40 CFR 61, subpart M.
 - Response: PMThas been marked as subject to NESHAP because units at the facillity are subject to some requirements of 40 CFR 61, Subpart M.
- 2. In Facility Pollutants, Section C, page 3, what does "HAP" refer to? (Note that HAP is listed elsewhere in each of the regulated emissions unit pollutant sections, Section G, also.)
 - Response: The references to HAP should have been "HAPS" for Sections C and G of each of the regulated emission units.
- 3. The document identified in Facility Supplemental Information, Section E, page 2, PMTFS-7.txt, List of Proposed Exempt Activities and PMTFS_11.txt, Identification of Additional Applicable Requirements, appear to be missing. Please provide a copy of the referenced documents.
 - Response: The reference to the document PMTFS-7.txt was in error. The comment to Item 7, Section E, page 2, should read N/A (Not Applicable). The reference to PMTFS_11.txt in Item 11, Section E, page 2, was in error and should read NA (Not Applicable). Additional Applicable Requirements are listed in each of the Emission Unit sections of this application.
- 4. Also in Section E, on the Facility Plot Plan, Attachment FS-2, a sandblasting area, a paint shop, and fuel oil heaters are shown, but not mentioned in the rest of the application. Please provide information indicating whether they are regulated or unregulated emission units or exempt activities.
 - Response: The sandblasting pit has been demolished at this facility. The paint shop facility is included in the Unregulated Activities Section under the proposed unregulated activity Painting of Plant Equipment. The fuel oil heaters are associated with the Fuel Oil Storage Tanks and Related Equipment and are included in their request for exemption under the Unregulated Emission Units Section.

Emission Unit Information

Boilers

1. In section L for Unit 1, page 1, for Emissions Units 1 and 2 it appears that document PMTEU1_4.bmp, Description of Stack Sampling Facilities, is labeled as PMTU1_1.bmp. On page 2 "Not Applicable" was entered for Identification of Additional Applicable Requirements, but appears attached as PMTU1_12.txt. Please confirm or correct this.

Response: The reference for Item 4 in section L, page 1, of Emission Unit 1 and Emission Unit 2 is in error. The reference on both of these pages should read "PMTU1_1.bmp". The references for Item 12, section L, page 2, for Emission Unit 1 and Emission Unit 2 are in error. The reference for Item 12 for Emission Unit 1 should read "PMTU1_12.txt". The reference for Item 12 for Emission Unit 2 should read "PMTU2_12.txt".

2. Also, in Section L, page 6, for Emissions Units 1 and 2, "Previously Submitted" should have been entered in the Acid Rain Application Phase II form information blank instead of "Not Applicable" since the Department received the application December 6, 1995, signed by William M. Reichel.

Response: The references for both Emission Units were in error and should read "Previously Submitted".

Note: A change to the permitted fuels for Emission Units 1 and 2 was granted by the Tampa Office of the Florida Department of Environmental Protection through an ammendment of permits A041-204804 (Manatee Unit 1) and A041-219341 (Manatee Unit 2) to include the incineration and evaporation of non-hazardous boiler cleaning waste and the use of propane as a startup fuel.

Unregulated Emissions Units

- 1. In Section L, page 6, for Emissions Unit 3, it appears that PMRU9_13.txt, Identification of Additional Applicable Requirements, is missing. Please provide a copy of the referenced document
 - Response: The reference to the document was in error, the comment should read NA (Not Applicable).
- 2. Please review the activities listed in Attachment PMT-FW and determine which activities qualify for exemption or are unregulated emission units. Please propose exemption only for those activities that are stationary sources of air pollution that qualify for exemption under the provisions of Rule 62-213.420(6), F.A.C., pursuant to Rule 62-213.420(3)(m), F.A.C. Please identify unregulated emission units in attachment PMT-FW and indicate any that emit pollutants greater than the threshold levels specified in Rules 62-213.420(3)(c)3 and 4, F.A.C. Please revise and resubmit the attachment and list only unregulated emission units and exempt activities. Please do not list trivial activities at all on the revised list.

Response: The majorities of the activities are, in fact trivial, and have been eliminated from our list per your request. Activities requested for exemption are as follows:

Item Propane relief valves	Rationale Safety equipment is exempted by Rule 62-210.300(3)(a) 22 F.A.C.
Hydrazine mixing tank & relief valves	This is a 33% aqueous product stored in stainless steel bins. Typically the facility stores 300-gallons; therefore the emissions of hydrazine are below the 1,000-lb. threshold.
Fuel Oil storage tanks and related equipment	Combined VOC emissions of the fuel oil storage tanks & equipment are less than the 5

ton threshold.

Lube Oil tank vents & extraction vents

These items concern lubricating oils which have a low volatility. There is insufficient quantity on hand as the facility to produce a 5-ton release.

Oil / Water Separators and related equipment

VOC's are below the 5-ton threshold. There is insufficient quantity on hand at the facility to produce a 5-ton release.

Miscellaneous mobile vehicle operation (cars, light trucks, heavy-duty trucks, backhoes, tractors, forklifts, cranes, etc.)

Exempted by Rule 62-210.300(3)(a) 5.

Unregulated Activities are proposed as follows:

Emergency Diesel Generator (NOx, CO, VOC, PM, and SO2 could each exceed 5 tons per year if operated 8,760 hours)

Painting of Plant equipment & Non-halogenated solvent cleaning operations (Combined VOC emissions from these activities corribined could exceed 5 tons per year)

Miscellaneous mobile equipment & internal combustion engines. (Combined NOx emissions could exceed 5 tons per year)

No other pollutants approach the relevant permitting thresholds.

Should you have any questions, or need any additional information, you may contact me by telephone at (561) 691-2894 or at the address provided below.

Sincerely,

John C. Hampp

Sr. Regulatory Specialist

Florida Power & Light Company

Bcc:

J. Parent
L. French
PMT / PMT
R. Adams
PCC / PCC
R. Piper
PMT / PMT

Owner/Authorized Representative or Responsible Official

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

Name: J. M. Parent

Title: Plant General Manager

2. Owner or Responsible Official Mailing Address:

Organization/Firm: FPL Environmental Services Department

Street Address: 700 Universe Blvd

City: Juno Beach

State: FL

Zip Code: 33408

3. Owner or Responsible Official Telephone Numbers:

Telephone: 9417765211

Fax: 9417765219

4. Owner or Responsible Official Statement:

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

Signature

Date

4. Professional Engineer Statement:

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

- (1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and
- (2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for a emission unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

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

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

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

tach and Exception to certification statement. (ATTACHED)

Supplement to Professional Engineer Certification Statement

This information supplements the original Title V application for the FPL Manatee plant of June 1996 which was certified by Ken Kosky of KBN Engineering & Applied Sciences. This certification statement applies only to the following items included in this supplemental package submitted on July 22, 1997:

- List of Unregulated Activities
- List of Exempt Activities
- List of Equipment / Activities Regulated under Title VI

Signature Signature

8/12/97



Department of Environmental Protection

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

_ Virginia B. Wetherell Secretary

May 13, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. J.M. Parent
Plant General Manager
Florida Power & Light Company/Manatee Plant
11770 U.S. Highway One
North Palm Beach, FL 33408

Re: Request for Additional Information Regarding Initial Title V Permit Application

File No. 0810010-001-AV

Manatee Plant, Manatee County

Dear Mr. Parent:

Your initial Title V permit application for the Manatee Plant was "timely and complete" for purposes of the initial Title V application submission (see Rule 62-213.420(1)(a)1. and (b)2... F.A.C.).

However, in order to continue processing your application, the Department will need the below additional information pursuant to Rule 62-213.420(1)(b)3., F.A.C., and Rule 62-4.070(1), F.A.C. The additional information requested is organized by topic.

Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

Facility Information

- 1. Facility Regulatory Classifications, Section A, page 2, number 9, is marked that emissions units are subject to NESHAP. Please confirm that this item was only marked because units at the facility may be subject to some of the requirements of 40 CFR 61, Subpart M.
- 2. In Facility Pollutants, Section C, page 3, what does "HAP" refer to?
- 3. In Facility Supplemental Information, Section E, page 2, PMTFS-7.txt, List of Proposed Exempt Activities and PMTFS_11.txt, Identification of Additional Applicable Requirements, appear to be missing. Please provide a copy of the referenced documents.

on the reverse side?	SENDER: • Complete items 1 and/or 2 for additional services. • Complete items 3, and 4a & b. • Print your name and address on the reverse of this form so the return this card to you. • Attach this form to the front of the mailpiece, or on the back is does not permit. • Write "'Peturn Receipt Requested" on the mailpiece below the article to the Return Receipt will show to whom the article was delivered a delivered.	if space icle number	following services fee): 1.	ee's Address	Receipt Service.
AJDRESS com	3. Article Addressed to: Mr. J. M. Parent, Plant General Manage Florida Power & Light Co., Manatee Plant 11770 U.S. Highway One North Palm Beach, Florida 33408	4b. Sel Regi Cert	ress Mail Retui		you for using Return R
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Department of Environmental Protection

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

November 6, 1997

Virginia B. Wetherell Secretary

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 Atlanta, GA 30303

Re: Title V Permit for FPL's Manatee Plant

Dear Mr. Neeley:

We received informal comments (enclosed) from your staff on our Draft Title V permit for Florida Power and Light Company's Manatee Plant. A teleconference was held on October 29, 1997 with Scott Sheplak, Joseph Kahn and Susan DeVore of the Title V Section and Yolanda Adams and David McNeal of your staff to discuss EPA's informal comments and the Department's responses.

Staff from the two agencies disagreed on the resolution of several of EPA's comments related to the issues of credible evidence and periodic monitoring. My staff articulated our need to stand behind our SIP, but your staff firmly disagreed with our position. We agree with Ms. Adams and Mr. McNeal that these issues apply to each of the permits issued by my staff. Ms. Adams and Mr. McNeal indicated that a failure to resolve these comments for the FPL Manatee permit will result in EPA's raising these same issues (or veto) for the remaining permits and reopening the permits already issued to address these issues. This approach suggests that these are major issues that need immediate resolution.

Regarding EPA's first comment, Ms. Adams and Mr. McNeal stated that an averaging time of 3 hours must be specified in the permit to make the sulfur dioxide standard for these boilers regulated under Florida's Rule 62-296.405, Florida Administrative Code (F.A.C.), practically enforceable, even though the facility is required to demonstrate compliance by monthly composite fuel analysis. The boilers have CEMS for sulfur dioxide pursuant to Acid Rain, and your staff stated they want the averaging time specified to simplify enforcement action, if ever required, using CEMS data pursuant to EPA's credible evidence rule. Ms. Adams and Mr. McNeal stated that 40 CFR Part 70 is the applicable requirement that provides the Department the authority to impose more stringent requirements than specified by our SIP, including, in this case, an averaging period that does not relate to the compliance method. We simply do not have the legal authority to do this.

Our permit has been written in accordance with the SIP, pursuant to Department rule, which allows fuel monitoring in lieu of an annual stack test. The rule could be (and has previously been) interpreted to require only annual fuel monitoring, so regular fuel monitoring represents a practical, reasonable compromise between EPA's desire for continuous compliance monitoring and the annual sampling requirements of our SIP. We are concerned that the requested averaging time does not match the effective averaging time of the specified compliance method (fuel analysis). We believe that the averaging time should be determined if, and when, the CEMS data is used by EPA under the credible

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

Mr. R. Douglas Neeley November 6, 1997 Page 2 of 3

evidence rule, and not imposed in the permit. (Perhaps it is not appropriate that enforcement action be "simplified" when pursued outside the bounds of the requirements of the permit or the SIP.) FPL previously told the Department that it is considering abandoning the CEMS and using an alternative Acid Rain compliance method. Since the CEMS is not the compliance method for this facility pursuant to Florida's SIP, and since the facility may not even operate the CEMS in the future, it is not appropriate to place the averaging time in the permit.

EPA's third and fourth comments are closely related. Ms. Adams and Mr. McNeal stated that annual stack tests for PM and VE are not adequate demonstrations of compliance for periodic monitoring, and reiterated their position that Part 70 requires the Department to impose additional monitoring, such as continuous opacity monitoring using the COMS installed for Acid Rain. Again, our position is that we simply do not have the legal authority to do this, and the permit reflects the SIP and rule requirements. Since EPA has made it clear that it intends to use the credible evidence rule to access CEMS data, even if such CEMS is not referenced in the permit, there is no need to change the compliance method from an annual test when the SIP does not require it. The source has never agreed to use COMS data to substitute for the annual VE test, and has not changed its position.

We disagree with your staff on these issues: That an averaging time not related to the compliance method be specified to simplify use of the credible evidence rule; that additional monitoring is required where the SIP already specifies monitoring requirements; and that Part 70 provides authority to impose such additional requirements or monitoring. The credible evidence rule allows for the collection of credible data, and indeed requires the Responsible Official to use all credible data for the compliance determination, regardless of the inclusion of such data in the Title V permit. EPA has made itself clear on its position regarding this point, so there is absolutely no need to address credible evidence in the permit. The Department's legal counsel has advised that the periodic monitoring language of Part 70 does not give the Department the authority to exceed its SIP requirements. Also, Mike Trutna, one of the Part 70 authors, previously told Bruce Mitchell of the Title V Section that a state's SIP requirements are considered sufficient for the purposes of demonstrating compliance pursuant to Part 70. This concept is fundamental to Florida's Title V program. Florida's program is codified in its rules, so we do not directly implement Part 70. Regardless, on these issues Part 70 and Rule 62-213, F.A.C., are in clear agreement:

40 CFR 70.6(a)(3) reads (emphasis added):

- (3) Monitoring and related recordkeeping and reporting requirements. (i) Each permit shall contain the following requirements with respect to monitoring:
- (B) Where the applicable requirement <u>does not require</u> 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...

And 62-213.440, F.A.C., reads (emphasis added):

(1) Standard Permit Requirements. Each permit issued under this chapter shall incorporate all applicable requirements for the Title V source and for each method of operation proposed by the applicant and approved by the Department. Each such permit shall include all emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements, with citation to the <u>Department's rule authority</u> for

Mr. R. Douglas Neeley November 6, 1997 Page 3 of 3

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each term or condition, and identification of any difference in form from the applicable requirement upon which the term or condition is based....

- (b) Monitoring and Related Recordkeeping and Reporting Requirements.
- 1. Each permit shall specify the following requirements with respect to monitoring:
- a. Emissions monitoring and analysis procedures or test methods <u>specified by</u> <u>applicable requirements</u>;
- b. Where the applicable requirement <u>does not specify</u> a method for periodic testing or instrumental or noninstrumental monitoring, periodic monitoring sufficient to yield reliable data and demonstrate compliance with the permit....

Clearly, 40 CFR Part 70.6 and Rule 62-213.440, F.A.C., agree that additional monitoring requirements are to be imposed only when the applicable requirement does not specify or require any monitoring. The "adequacy" of such monitoring is not addressed nor defined in either Part 70 or Chapter 62-213, F.A.C. Our SIP and rules implementing other delegated programs specify monitoring requirements. These requirements have been incorporated into the Title V permit. That is where our authority ends. The industry in Florida relies on the Department to follow our rules and the SIP, and we do our best to do so. We can not create additional permit requirements without legal authority. If EPA believes that Florida's program is deficient, the appropriate mechanism is a Program Call. At this stage in our Title V permitting effort, we should not have to address a program issue, permit by permit.

EPA submitted similar comments related to periodic monitoring on the Lakeland Larsen Proposed permit and we discussed these issues during an August 8, 1997 teleconference with Carla Pierce, Yolanda Adams, David McNeal and others of your staff. For the same reasons outlined above, we made no changes to the permit. EPA made no objection to the Lakeland Larsen permit.

I will call you in a couple of days to discuss this further and attempt to resolve these issues. Alternatively, you may contact me at 850/488-1344.

Sincerely,

C. H. Fancy, P.E

Chief

Bureau of Air Regulation

CF/jk

Enclosure

cc: Howard L. Rhodes Scott Sheplak

Pat Comer

ELECTRONIC TRANSMISSION

Date:

September 29, 1997

To:

From:

Subj:

Scott Sheplak, FL DEP Yolanda Adams, EPA Region 4 EPA Informal Comments on Draft Title V Permit

Facility:

FP&L - Manatee Plant

Below are informal comments from EPA Region 4 on the subject source. Please note that if comments relating to periodic monitoring are not resolved, an objection to the proposed permit might be warranted. Please call me at your convenience so that we may discuss our comments and your resolution. You can reach me at 404/562-9116. Thanks. Yolanda

Comment #) Permit Page/ Condition #	Comments Made to the Permitting Authority	Resolution
	This condition should be revised to specify the averaging ne for the SO ₂ standard. Although the permit identified	I I
	uel sampling and analysis as the primary method o	
de	monstrating compliance with the SO2 standard, data fr	-pm
	the certified SO ₂ continuous emission monitors installed on	
*.	Units 1 and 2 will also provide credible evidence regarding	,
	the compliance status of these units. In order to use data	
·	from these monitors for assessing the SO2 compliance status	
	of Units 1 and 2, however, it is essential to know the	
	averaging time for the underlying standard.	e e e e e e e e e e e e e e e e e e e
(2) Page 8,9/	Based upon monitoring data submitted under the provisions	·
A.17.5., A.18.,	of the acid rain continuous emission monitoring rule, it	
A.19.	appears that Units 1 and 2 operate substantially more than	
1234	400 hours per year. Therefore, unless it is likely that these units will operate fewer than 400 hours per year in the	
	future, Region 4 recommends that these conditions which	
	address testing waivers for infrequently operated units (i.e.,	
***	those that operate fewer than 400 hours per year) be	
7	dropped in order to avoid cluttering the permit with	
	provisions which do not apply at Plant Manatee.	
(3)	Since certified opacity monitors are installed on Units 1 and	
Page 7/ A.14.	2, this condition should be revised to require that these	
	monitors, rather than an annual opacity compliance test, be	
	used as the basis for the excess emission reports required	·
	under Condition A.32 and the annual compliance	·
	certification required under Part 70. Since opacity monitors	
	have already been installed and certified on these units,	
;	requiring that they be used for conducting periodic monitoring imposes little or no additional burden on Florida	
·	Power & Light. A compliance certification based upon these	
	monitors, however, will be much more credible than one	
	based upon a single hour of visible emission observations	
	collected each year.	
		,

(4)	A coording to this condition, the neglectic manifesture	
Page 7/ A.14.	According to this condition, the periodic monitoring	
Tage // A.I.	approach used to verify compliance with the applicable	
	particulate emission limit consists of an annual emission test.	
	It is unclear if 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. Therefore,	
	the statement of basis should be revised to identify the	
	rationale for basing the compliance certification only on data	
	from a short-term annual test or the permit should be revised	
* \;\;\;\;\;\;\;\;\;\;\;\;\;\;\;\;\;\;\;	to identify additional monitoring that must be conducted in	
	order to gather the data used for the annual compliance	
	certification.	
(5)	According to this condition, fuel sampling and analysis will	
Page 7/ A.15.	be the periodic monitoring method used to certify	
5	compliance with the SO ₂ limit for Units 1 and 2. This	
	condition which requires that specific test methods,	
	monitoring or recordkeeping be used as a demonstration of	
	compliance with permit limits does not, however, shield the	
	source from violations of the applicable requirements being	
	established and documented through other evidence (e.g.,	
	the certified SO ₂ monitors installed on these units), nor does	
	it relieve the source from its obligation to comply with the	
	underlying emission limits or other applicable requirements	
	being monitored. The preamble to EPA's credible evidence	
	rule specifically states that a permit cannot shield a source	
	from enforcement based on evidence not specified in the	
	permit (see 62 FR 8314, February 24, 1997, p8320).	

DEP/EPA Teleconference Regarding FPL Manatee October 29, 1997

Yolanda Adams, EPA David McNeal, EPA Scott Sheplak, DEP Joseph Kahn, DEP Susan DeVore, DEP

Regarding EPA comments and DEP responses on the FPL Manatee Draft permit:

1. EPA believes that an averaging period must be specified in the permit to make the sulfur dioxide standard on the 62-296.405 practically enforceable. The source has CEMS for sulfur dioxide for Acid Rain and EPA wants the averaging time specified to allow easier enforcement action, if ever required, using CEMS data as credible evidence. Having the averaging time specified in the permit will prevent the averaging time from being an issue if CEMS data is used for enforcement. EPA also believes that Part 70 is the applicable standard that requires the DEP to place more stringent requirements than specified by the SIP, if required to demonstrate compliance.

DEP's position is that the permit is written to reflect the SIP requirements (pursuant to DEP rules) that require an annual stack test, but allow fuel monitoring. The rules could be interpreted to require only annual fuel monitoring, so regular fuel monitoring exceeds the SIP requirements and represents a good compromise between continuous compliance and annual sampling. Mike Trutna, one of the Part 70 authors, previously told Bruce Mitchell of DEP that a state's SIP requirements are considered sufficient for the purposes of demonstrating compliance pursuant to Part 70. DEP also believes that the averaging time would reasonably be determined to be 3 hours to match the required stack testing period, and since that determination could be made when the CEMS data was used by EPA under the Credible Evidence rule, the averaging time does not need to be stated in the permit. DEP is also concerned that the requested averaging time for the standard would not match the effective averaging time of the specified compliance method (fuel analysis). FPL previously told the DEP that it is considering abandoning the CEMS and using an alternative Acid Rain compliance method. Since the CEMS is not the compliance method for this facility pursuant to Florida's SIP, and since the facility may not even operate the CEMS in the future, it is not appropriate to place the averaging time in the permit.

EPA agreed that the averaging time of 3 hours is appropriate, but insisted that it must be specified in the permit, pursuant to Part 70. EPA believes that Howard agreed with EPA during a recent Director's meeting to put such averaging times into permits. Both parties agreed to defer further discussion on this issue until Scott has an opportunity to discuss this with Clair when he returns in November.

The parties also discussed the change in the Proposed permit from fuel sampling upon each fuel delivery to daily fuel sampling with monthly composite analysis. EPA suggested that the original sampling program was more appropriate. DEP stated the revised approach was appropriate given that it is practical, matches what the source is currently doing, and avoids problems with the original program associated with the sampling event. (The facility may receive fuel in a partially full tank so there is the potential for inadequate mixing of received and stored fuels depending on temperature and viscosity.) Both parties eventually agreed that the revised approach would, over time, yield results similar to the original approach.

DEP/EPA Teleconference Regarding FPL Manatee October 29, 1997 Page 2 of 2

2. EPA stated that this item was not an issue for this source, but indicated it will be an item for other facilities. DEP reiterated that the exemption was allowed by the SIP, and this language would appear in every other permit issued by this office.

The parties agreed to address the next item out of order.

5. EPA agreed with DEP's response that this comment required no change in the permit.

Items 3 and 4 were discussed together.

3./4. EPA stated that an annual stack test is not an adequate demonstration of compliance for periodic monitoring and reiterated the position that Part 70 requires additional monitoring.

DEP's position is that the permit reflects the SIP requirements. Since EPA has made it clear that it intends to use the Credible Evidence rule to access CEMS data, even if such CEMS is not referenced in the permit, there is no need to change the compliance method from an annual test when the SIP does not require it. Additionally, the source has not previously agreed to use COMS data to substitute for the annual VE test. DEP's legal counsel has also advised that the periodic monitoring language of Part 70 is vague and thus, does not require DEP to exceed its SIP authority. The Department has no legal authority to require monitoring beyond what is required be the approved SIP.

EPA indicated that other states have agreed to change compliance methods to require continuous monitoring, and does not understand Florida's reluctance to do this for this project. EPA believes it is reasonable to require COMS as the compliance method since they are already installed and operational. EPA agreed that COMS data would provide compliance assurance for both VE and PM emissions since there is a credible link between opacity and PM emissions.

DEP agreed to ask FPL if they would agree to substitute the COMS instead of an annual VE test as the compliance method. DEP will then reply to EPA after considering FPL's response.

Notes by Joseph Kahn

Date:

10/24/97 9:04:06 AM Scott Sheplak TAL

From: Subject:

Response to your comments

To:

adams yolanda pierce carla

CC:

Joseph Kahn TAL Clair Fancy TAL

Our response to your comments on the FP&L-Manatee Plant DRAFT Title V permit are attached.

The attached file is in Word. You should be able to decode the file using the UUDECODE program. The is my first try at this. If you are unable to read the message please advise and we will fax.

TO: Yolanda Adams, USEPA, Region 4

FROM: Scott Sheplak, Title V Section, Florida DEP

DATE: October 23, 1997

Re: Response to EPA informal comments

DRAFT Permit 0810010-001-AV

FP&L-Manatee Plant

We reviewed your comments on the draft, and did not make any changes. Our responses are below.

1. Rule 62-296.405 does not specify the averaging period for the sulfur dioxide limit. It is reasonable to assume from the rule's compliance method, that the averaging period is 3 hours, to coincide with the length of a stack test. Fuel sampling is allowed by rule instead of a stack test, and that provision could be interpreted to require to fuel sampling only once annually (as was allowed by prior operating permits for this and other similar facilities). The Title V permit requires essentially compliance at all times as demonstrated by fuel analysis, and it will be changed to specifically require daily sampling of fuel fired and monthly composite analysis. This is more stringent than allowed by rule.

(Note that Mirza Baig had also commented to Joe Kahn and myself during our recent annual air meeting that he felt that the fuel sampling and analysis requirements did not constitute a continuous demonstration of compliance with the sulfur dioxide limit. Our response to him was essentially the same as the above. Mirza also commented that the used oil condition should specify a sulfur limit. The first used oil condition states that all other conditions of the permit must be complied with, i.e., the sulfur dioxide, PM, and VE limitations, etc.)

- 2. The 400 hour exemption from testing is authorized by rule and is applicable to this source. It is possible (but not likely) that these units may meet that exemption criteria in the future. The rule does not address the likelihood of a source meeting the criteria, and we should not delete an applicable provision because it may not be used by the permittee.
- 3. The compliance method and frequency for VE are specified by rule.
- 4. The compliance method and frequency for PM are specified by Department rules. We are unclear why we should have to clarify this in the statement of basis, or why the RO should not rely on the compliance method specified in this permit to certify annual compliance.
- 5. EPA's last written comment explicitly requires no changes in the permit. It restates EPA's position on the issue of credible evidence. EPA's interim guidance of April 29, 1997 affirms its authority to use CEMS even if not specified in a source permit.

We will be forwarding the proposed permit to you.

0810010.1

Date: 10/24/97 9:28:02 AM From: Scott Sheplak TAL

Subject: Response

To: adams yolanda
To: pierce carla
CC: Joseph Kahn TAL
CC: Clair Fancy TAL

Our response to your comments on the FP&L-M anatee Plant DRAFT Title V permit are attached.

The attached file is in Word. You should be able to decode the file using the UUDECODE program. The is my first try at this. If you are unable to read the message please advise and we will fax.

file name: 0810010.uue

ELECTRONIC TRANSMISSION

Date:

September 29, 1997

To:

Scott Sheplak, FL DEP

From:

Yolanda Adams, EPA Region 4

Subj:

EPA Informal Comments on Draft Title V Permit

Facility:

FP&L - Manatee Plant

Below are informal comments from EPA Region 4 on the subject source. Please note that if comments relating to periodic monitoring are not resolved, an objection to the proposed permit might be warranted. Please call me at your convenience so that we may discuss our comments and your resolution. You can reach me at 404/562-9116. Thanks. *Yolanda*

(Comment #) Permit Page/ Condition #	Comments Made to the Permitting Authority	Resolution
(1) Page 6/ A.9.	This condition should be revised to specify the averaging time for the SO ₂ standard. Although the permit identifies fuel sampling and analysis as the primary method of demonstrating compliance with the SO ₂ standard, data from the certified SO ₂ continuous emission monitors installed on Units 1 and 2 will also provide credible evidence regarding the compliance status of these units. In order to use data from these monitors for assessing the SO ₂ compliance status of Units 1 and 2, however, it is essential to know the averaging time for the underlying standard.	
(2) Page 8,9/A.17.5., A.18., A.19.	Based upon monitoring data submitted under the provisions of the acid rain continuous emission monitoring rule, it appears that Units 1 and 2 operate substantially more than 400 hours per year. Therefore, unless it is likely that these units will operate fewer than 400 hours per year in the future, Region 4 recommends that these conditions which address testing waivers for infrequently operated units (i.e., those that operate fewer than 400 hours per year) be dropped in order to avoid cluttering the permit with provisions which do not apply at Plant Manatee.	

(3) Page 7/ A.14.

Since certified opacity monitors are installed on Units 1 and 2, this condition should be revised to require that these monitors, rather than an annual opacity compliance test, be used as the basis for the excess emission reports required under Condition A.32 and the annual compliance certification required under Part 70. Since opacity monitors have already been installed and certified on these units, requiring that they be used for conducting periodic monitoring imposes little or no additional burden on Florida Power & Light. A compliance certification based upon these monitors, however, will be much more credible than one based upon a single hour of visible emission observations collected each year.

(4) Page 7/ A.14.

According to this condition, the periodic monitoring approach used to verify compliance with the applicable particulate emission limit consists of an annual emission test. It is unclear if 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. Therefore, the statement of basis should be revised to identify the rationale for basing the compliance certification only on data from a short-term annual test or the permit should be revised to identify additional monitoring that must be conducted in order to gather the data used for the annual compliance certification.

(5) Page 7/ A.15.

According to this condition, fuel sampling and analysis will be the periodic monitoring method used to certify compliance with the SO₂ limit for Units 1 and 2. This condition which requires that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits does not, however, shield the source from violations of the applicable requirements being established and documented through other evidence (e.g., the certified SO₂ monitors installed on these units), nor does it relieve the source from its obligation to comply with the underlying emission limits or other applicable requirements being monitored. The preamble to EPA's credible evidence rule specifically states that a permit cannot shield a source from enforcement based on evidence not specified in the permit (see 62 FR 8314, February 24, 1997, p8320).

TO: Yolanda Adams, USEPA, Region 4

FROM: Scott Sheplak, Title V Section, Florida DEP

DATE: October 23, 1997

Re:

Response to EPA informal comments DRAFT Permit 0810010-001-AV

FP&L-Manatee Plant

We reviewed your comments on the draft, and did not make any changes. Our responses are below.

1. Rule 62-296.405 does not specify the averaging period for the sulfur dioxide limit. It is reasonable to assume from the rule's compliance method, that the averaging period is 3 hours, to coincide with the length of a stack test. Fuel sampling is allowed by rule instead of a stack test, and that provision could be interpreted to require to fuel sampling only once annually (as was allowed by prior operating permits for this and other similar facilities). The Title V permit requires essentially compliance at all times as demonstrated by fuel analysis, and it will be changed to specifically require daily sampling of fuel fired and monthly composite analysis. This is more stringent than allowed by rule.

(Note that Mirza Baig had also commented to Joe Kahn and myself during our recent annual air meeting that he felt that the fuel sampling and analysis requirements did not constitute a continuous demonstration of compliance with the sulfur dioxide limit. Our response to him was essentially the same as the above. Mirza also commented that the used oil condition should specify a sulfur limit. The first used oil condition states that all other conditions of the permit must be complied with, i.e., the sulfur dioxide, PM, and VE limitations, etc.)

- 2. The 400 hour exemption from testing is authorized by rule and is applicable to this source. It is possible (but not likely) that these units may meet that exemption criteria in the future. The rule does not address the likelihood of a source meeting the criteria, and we should not delete an applicable provision because it may not be used by the permittee.
- 3. The compliance method and frequency for VE are specified by rule.
- 4. The compliance method and frequency for PM are specified by Department rules. We are unclear why we should have to clarify this in the statement of basis, or why the RO should not rely on the compliance method specified in this permit to certify annual compliance.
- 5. EPA's last written comment explicitly requires no changes in the permit. It restates EPA's position on the issue of credible evidence. EPA's interim guidance of April 29, 1997 affirms its authority to use CEMS even if not specified in a source permit.

We will be forwarding the proposed permit to you.

0810010.1

Post-it® Fax Note 767	71.	Date 10129197 # of pages \
To Rich Piper		From Susan DeVoce
Co./Dept.		Co.
Phone #		Phone #
Fax # 561/691-707	10	Fax #

Date: 10/13/97 4:09:14 PM From: Joseph Kahn TAL

From: Joseph Kahn TAL Subject: FPL Manatee, EPA Comments

To: Scott Sheplak TAL

Scott,

I have reviewed EPA's comments on the draft, and I do not believe that any changes are required to address these comments beyond what we have agreed with FPL to change. My thoughts on EPA's comments are as follows, in the order they presented them:

1. Rule 62-296.405 does not specify the averaging period for the sulfur dioxide limit. It is reasonable to assume from the rule's compliance method, that the averaging period is 3 hours, to coincide with the length of a stack test. Fuel sampling is allowed by rule instead of a stack test, and that provision could be interpreted to require to fuel sampling only once annually (as was allowed by prior operating permits for this and other similar facilities). The Title V permit requires essentially compliance at all times as demonstrated by fuel analysis, and it will be changed to specifically require daily sampling of fuel fired and monthly composite analysis. This is more stringent than allowed by rule.

(Note that Mirza Baig had also commented to me during the annual air meeting that he felt the fuel sampling and analysis requirements did not constitute a continuous demonstration of compliance with the sulfur dioxide limit. My response to him was essentially the same as the above. Mirza also commented that the used oil condition should specify a sulfur limit. After reviewing the draft permit again and the changes to the fuel sampling and analysis requirements, I believe the permit is adequately specific that the sulfur dioxide limitation applies to the sources while they fire used oil or any other liquid fuel.)

- 2. The 400 hour exemption from testing is authorized by rule and is applicable to this source. It is possible (but not likely) that these units may meet that exemption criteria in the future. The rule does not address the likelihood of a source meeting the criteria, and we should not delete an applicable provision because it may not be used by the permittee.
- 3. The compliance method and frequency for VE are specified by rule.
- 4. The compliance method and frequency for PM are specified by Department rules. I am unclear why we should have to clarify this in the statement of basis, or why the RO should not rely on the compliance method specified in this permit to certify annual compliance.
- 5. EPA's last written comment explicitly requires no changes in the permit. It restates EPA's position on the issue of credible evidence. EPA's interim guidance of April 29, 1997 affirms its authority to use CEMS even if not specified in a source permit.

As discussed, I am proceeding on creating the proposed permit, with the changes requested by FPL. Please let me know if you would like any other changes.

-Joe

ELECTRONIC TRANSMISSION

Date:

September 29, 1997

To:

Scott Sheplak, FL DEP

From:

Yolanda Adams, EPA Region 4

Subj:

EPA Informal Comments on Draft Title V Permit

Facility:

FP&L - Manatee Plant

Below are informal comments from EPA Region 4 on the subject source. Please note that if comments relating to periodic monitoring are not resolved, an objection to the proposed permit might be warranted. Please call me at your convenience so that we may discuss our comments and your resolution. You can reach me at 404/562-9116. Thanks. *Yolanda*

Comment #) Permit Page/ Condition #	Comments Made to the Permitting Authority	Resolution
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	the certified SO ₂ continuous emission monitors installed on Units 1 and 2 will also provide credible evidence regarding	
	the compliance status of these units. In order to use data	•
	from these monitors for assessing the SO ₂ compliance status of Units 1 and 2, however, it is essential to know the	
	averaging time for the underlying standard.	
(2) Page 8,9/ A.17.5., A.18., A.19.	Based upon monitoring data submitted under the provisions of the acid rain continuous emission monitoring rule, it appears that Units 1 and 2 operate substantially more than 400 hours per year. Therefore, unless it is likely that these units will operate fewer than 400 hours per year in the future, Region 4 recommends that these conditions which address testing waivers for infrequently operated units (i.e., those that operate fewer than 400 hours per year) be dropped in order to avoid cluttering the permit with provisions which do not apply at Plant Manatee.	
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According to this condition, the periodic monitoring approach used to verify compliance with the applicable particulate emission limit consists of an annual emission test. It is unclear if 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. Therefore, the statement of basis should be revised to identify the rationale for basing the compliance certification only on data from a short-term annual test or the permit should be revised to identify additional monitoring that must be conducted in order to gather the data used for the annual compliance certification.	
According to this condition, fuel sampling and analysis will be the periodic monitoring method used to certify compliance with the SO ₂ limit for Units 1 and 2. This condition which requires that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits does not, however, shield the source from violations of the applicable requirements being established and documented through other evidence (e.g., the certified SO ₂ monitors installed on these units), nor does it relieve the source from its obligation to comply with the underlying emission limits or other applicable requirements being monitored. The preamble to EPA's credible evidence rule specifically states that a permit cannot shield a source from enforcement based on evidence not specified in the permit (see 62 FR 8314, February 24, 1997, p8320).	
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Memorandum

To: Vito Giarrusso, FPL

Sent Via Fax: 561/691-7070

From: Joe Kahn, DEP, Title V Section

Date: September 19, 1997

Re: FPL Manatee Draft Permit Comments

Draft Permit No. 0810010-001-AV

Per our teleconference this morning, following are the changes we propose to address your comments. Please look these over and call me with your comments.

Section I, Subsection A and Section III, Subsection A shall be revised upon receipt of a revised application page (Section B, Emissions Unit Control Equipment) for each unit:

Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of ..., equipped with multiple cyclones, a flue gas recirculation system and staged combustion. Each operates a Westinghouse tandem compound, reheat-type extraction turbine.

Section III. Emissions Unit(s) and Conditions.

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

Each emissions unit consists of a boiler which drives a turbine generator. Emissions are controlled with multiple cyclones, a flue gas recirculation system and staged combustion. Each unit is equipped with a 499 foot stack.

Other revisions requested are as follows:

A.9. Sulfur Dioxide. ... [Rules 62-213.440 and 62-296.405(1)(c)1.g., F.A.C.]

Memo to Vito Giarrusso September 19, 1997 Page 2 of 2

- **A.17.** <u>Frequency of Compliance Tests</u>. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
- (a) General Compliance Testing. ...
 - 4. ...:

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- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 100 tons per year or more of any other regulated air pollutant; and
- **A.24.** For each emissions unit, 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:
 - a. Determine and record monthly the **as-fired** fuel sulfur content, percent by weight, for liquid fuels fired using 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 as-fired fuel. As-fired fuel oil heating value, density or specific gravity, and the percent sulfur content shall be determined by taking a daily sample of the fuel fired, combining those samples into a monthly composite, and analyzing a representative sample of the composite.
 - b. Record daily the amount of each fuel fired, and the density or specific gravity, the heating value, and the percent sulfur content by weight of the fuel fired derived from the monthly analysis.
 - c. Calculate and record the daily average sulfur dioxide emissions in pounds per hour (or tons per hour) and pounds per million Btu, using the records above. [Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C.]
- **A.34.** Sulfur Dioxide Emission Report. The owner or operator shall, by the thirtieth day following each calendar quarter, submit to the Department's Southwest District, Air Section, a summary report of the daily averages of sulfur dioxide emissions in pounds per hour (or tons per hour) and pounds per million Btu, for each month of the preceding calendar quarter. The report shall include the quantities of each fuel fired and document the heating value, density or specific gravity, and the percent sulfur content of the fuel fired. [Rule 62-4.070(3) and 62-213.440, F.A.C., AO 41-204804 Specific Condition 6, AO 41-219341 Specific Condition 6]



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

September 19,1997

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

Re: Draft Permit No. 0810010-001-AV FPL Manatee Plant Initial Title V Alr **Operation Permit Comments**

Dear Mr. Kahn:

Per our telephone conversation this morning, attached are the revised permit pages, Section B. General Emission Unit Information page 2, for unit 1 steam generator and unit 2 steam generator.

Plant General Manager

Florida Power & Light Company

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Emission Unit Information Section ____ of ____

B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

Description of Emissions Unit Addressed in This Section (limit to 60 characters):
 Unit 1 Steam Generator
 Emissions Unit Identification Number: 001
 (No Corresponding ID or Unknown)
 Emission Unit Status Code: (A or C): A
 Acid Rain Unit? (Y/N): Y
 Emissions Unit Major Group SIC Code: 49
 Emissions Unit Comment (limit to 500 characters):
 The generator nameplate rating given on page 4 is reflective of the information provided to the Florida Public Service Commission (PSC) in the 10-Year Site Plan. Actual generator output may exceed the value given, or may vary seasonally, with changes in unit efficiency, or due to fluctuations in system load demand.

Emissions Unit Control Equipment

- A. Control Equipment #: 1
 - Description (limit to 200 characters):
 Multiple Cyclone
 - 2. Control Device or Method Code: Multiple Cyclone

Form Effective: 3/21/96

Emission	Unit	Informa	tion S	ection	_ of
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B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Unit 2 Steam Generator
Emissions Unit Identification Number: 002 (No Corresponding ID or Unknown)
3. Emission Unit Status Code: (A or C): A
4. Acid Rain Unit? (Y/N): Y
5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment (limit to 500 characters): The generator nameplate rating given on page 4 is reflective of the information provided to the Florida Public Service Commission (PSC) in the 10-Year Site Plan. Actual generator output may exceed the value given, or may vary seasonally, with changes in unit efficiency, or due to fluctuations in system load demand.

Emissions Unit Control Equipment A. Control Equipment #: 1

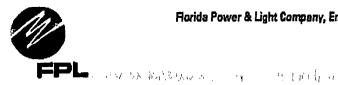
Description (limit to 200 characters): Multiple Cyclone	
2. Control Device or Method Code:	Multiple Cyclone

Form Effective: 3/21/96

M. W. Marker & Charles and the Contract of the

FPL ENVIRONMENTAL SERVICES DEPARTMENT PO BOX 14000 JUNO BEACH, FLORIDA 33408

DATE: 918.97
SEND TO: NAME: KAHN
COMPANY: FDEP
FAX NUMBER: 850-922-6979
PHONE NUMBER: 850-488-1344
CONTRACTOR WORKS A CONTRACTOR OF THE STATE O
FROM: VITO GIARRISSO
PHONE NUMBER: (561) 691-7061
FAX NUMBER: (561) 691-7070
NUMBER OF PAGES (INCLUDING COVER SHEET): 3
COMMENTS/INSTRUCTIONS:
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Horida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, Ft 33408

September 18,1997

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

Re: Draft Permit No. 0810010-001-AV

FPL Manatee Plant Initial Title V Air Operation Permit

Dear Mr. Kahn:

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

Section I. Facility Information

Page 2 - <u>Subsection A. Facility Description</u>: Delete the wording "with fly ash reinjection". The carbon reinjection blowers are not currently being used and have not been used for compliance testing. (delete same wording in section III, subsection A., pg. 5 of 17)

Section III. Emissions Unit(s) and Conditions

Page 6 - Specific Condition A.9 Sulfur Dioxide: Referenced rule 62-296.405(1)(c)1.j., F.A.C. should be, 62-296.405(1)(c)1.g., F.A.C.

Page 8 - <u>Specific Condition A.17</u>: Frequency of <u>Compliance Tests</u> (a) <u>4. b.</u>: We request removing the wording "5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; ". The maximum potential to emit lead would be under the following unit conditions, burning 100% oil, at full load and for 8,760 hours resulting in .27 tons per year per unit. Acrylonitile is not emitted.

Page 10 - <u>Specific Condition A.24.a.</u> We request that the word "fired" be inserted in the first sentence after the word fuels. Also that the words "following each fuel delivery be deleted". The revised paragraph would then read; a Determine and record the as-fired fuel sulfur content, percent by weight, for liquid fuels fired using 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 blended fuel.

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Page 10 - <u>Specific Condition A.24.b-</u> We request removing the entire sentence and replacing it with the language contained in specific condition 6 of the current air operating permit.

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

Very truly yours,

Vite Giarrus

Vito Giarrusso Sr. Environmental Specialist Florida Power & Light Company

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MY WARRENCE WARRENCE WARRENCE



September 3, 1997

Mr. W. Douglas Beason, Esquire Assistant General Counsel Office of General Counsel State of Florida Department of Environmental Protection 3900 Commonwealth Boulevard Tallahassee, Florida 32399-3000

RE: Manatee Power Plant

Notice of Intent to Issue Proposed DRAFT Permit No. 0810010-001-AV

Manatee County, Florida

Dear Mr. Beason:

On August 27, 1997, Florida Power and Light Company (FPL) received the referenced Notice of Intent to Issue Proposed Permit for its Manatee Power Plant located in Manatee County, Florida. The Notice of Intent will be issued by the Department and is signed by G.H.Fancy, P.E., Chief of the Bureau of Air Regulation.

FPL has been working in good faith with the Department to identify and resolve outstanding permit issues regarding FPL Title V facilities over the past several months. The Department and FPL agree that more time is needed to complete the permitting process for this facility. FPL hereby requests, pursuant to Rule 62-103.070, F.A.C., an extension to and including September 19, 1997, in which to file a petition for administrative proceedings. Furthermore, FPL requests public notice be delayed until September 19, 1997.

This request is filed simply as a protective measure to avoid waiver of FPL's right to challenge the permit as issued. Granting of this request will not prejudice either party, but will further their mutual interests and likely avoid the need to initiate formal administrative proceedings.

I hereby certify that I have contacted Mr. Joseph Kahn ,P.E., regarding this request, and he has no objection to this request for extension of time.

Accordingly, I hereby request that you formally extend the time for filing of a petition for administrative proceedings to and including September 19, 1997.

Sincerely,

Vito J. Giarrusso

Environmental Specialist

alist oc: Joseph Kahn, FDEP Tallahassoc

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BUREAU OF AIR REGULATION

an FPL Group company



June 23, 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. 0810010-001-AV FPL Manatee Plant Final Title V Permit

Dear Mr. Sheplak:

As we discussed in our phone conversation of 6/23/98, a copy of the communication between Joe Kahn of FDEP and Vito Giarrusso of FPL is attached. It indicates the SO2 reporting requirement was recognized by the Department as an incorrect version of Specific Condition A.36 prior to the EPA intervention.

FPL has identified several issues in the June 9, 1998, letter also enclosed, which need to be addressed.

Thank you for your attention to the issues raised in this correspondence. Please do not hesitate to contact me at (561) 691-7057 if I may be of further assistance.

Sincerely,

Mary Archer

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Sr. Environmental Specialist Florida Power & Light Company

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JUN 24 1998

BUREAU OF AIR REGULATION



BEST AVAILABLE COPY

Memorandum

To:

Vito Giarrusso, FPL

Sent Via Fax: 561/691-7070

From: Joe Kahn, DEP, Title V Section

Date:

December 10, 1997

Re:

FPL Manatee Proposed Permit Comments

Proposed Permit No. 0810010-001-AV

Per our memorandum dated December 9, 1997, we included the incorrect version of specific condition A.34., Sulfur Dioxide Emission Report. Pursuant to your request, we will change specific condition A.34. as follows:

A.34. Sulfur Dioxide Emission Report. The owner or operator shall, by the thirtieth day following each calendar quarter, submit to the Department's Southwest District, Air Section, a report of the monthly averages of sulfur dioxide emissions in pounds per million Btu, for each month of the preceding calendar quarter. The report shall include the quantities of each fuel fired and document the heating value, density or specific gravity, and the percent sulfur content of the fuel fired, based on the monthly analyses. [Rule 62-4.070(3) and 62-213.440, F.A.C., AO 41-204804 Specific Condition 6, AO 41-219341 Specific Condition 6]

As we discussed, if EPA files a formal objection to this permit, this change may not be made, or other changes may be required to resolve that objection. If you have any questions, please feel free to call me with any questions at 850/488-1344.



Department of Environmental Protection

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

Virginia B. Wetherell Secretary

June 12, 1998

Mr. J. Michael Kennedy, Chair Florida Electric Power Coordinating Group (FCG), Incorporated 405 Reo Street, Suite 100 Tampa, Florida 33609-1094

Re: Title V Permits

Dear Mr. Kennedy:

The purpose of this letter is to address several commonly recurring issues regarding the content of Title V permits. Many of these issues were identified in the FCG's letter dated December 17, 1997. Resolution of these issues will expedite the processing of Title V permits.

1. Capacity and Load Change Determinations

There are three primary reasons for capacity determinations: 1) 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 rate); 2) to establish appropriate emission limitations; and, 3) to aid in determining rule applicability. Rule 62-297.310(5), F.A.C., included in Title V permits, requires the measurement of process variables such as heat input. Heat input is defined in Rule 62-210.200, F.A.C., as "The product, expressed in million British thermal units per time (mmBtw/time), of the gross calorific value of the fuel, expressed in British thermal units per pound (Btu/lb), and the fuel feed rate into the combustion device, expressed in mass of fixel/unit of time, and not including the heat derived from preheated combustion air, recirculated flue gases, or exhaust from other sources." The department realizes certain types of fossil fuels have highly variable heat content. On a case-by-case basis, Title V permits can be clarified as to how the capacity determination is made by the plant operations. The department understands many applicants have been concerned that the acid rain flow continuous emission monitors (CEMs), when used to calculate actual heat input, will produce a result indicating an exceedence of the maximum heat input limit listed in the permit. To alleviate this concern, the department is willing to add the following to the permit condition related to capacity - "The acid rain CEMs will not be a method of compliance for the determination of the heat input rate."

Load change determinations are needed for existing fossil fuel steam generators regulated under Rule 62-296.405, F.A.C., because different visible emission and particulate matter standards apply under load change. As defined in Rule 62-210.700(3), F.A.C., a load change occurs "when the

June 12, 1998 FCG letter Page 2

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." The department understands that most electrical generating sources continuously measure and record fuel feed rates, i.e., gallons/hour, cubic feet/hour, lbs/hour, in addition to megawatt production, but, may not be continuously measuring and recording gross calorific value (Btu/lb). Title V permits for electrical generating sources reference the nameplate generating capacity (nominal megawatt output), heat input (mmBtu/hr), and emission limiting standards in terms of lb/mmBtu. Therefore, to be consistent with regulatory requirements, the change in heat input (mmBtu/hr) should be used to determine load change.

2. Opacity Monitoring Data Averaging

Opacity monitoring data must be averaged in accordance with the compliance test method specified. For units equipped with opacity monitors used to demonstrate compliance with emission limiting standards, the monitor must be properly maintained and calibrated on a frequent basis. The USEPA Method 9 and DEP Method 9 are acceptable compliance test methods for opacity. These compliance test methods utilize a rolling six minute average versus a block average. Data from opacity monitors can be calculated based on a rolling six minute average. Rolling average data may prove to be more useful to plant operations.

The department understands that many emissions units have installed and currently operate continuous opacity monitoring systems (COMs) to meet acid rain program requirements. Obviously, COMs data can be used to demonstrate compliance with opacity standards. COMs data can be used to demonstrate compliance more frequently than a once per year Method 9 test. The COMs provisions referenced in 40 CFR 75 require data to be reduced to a six minute average. The acid rain regulation does not clarify whether this is a rolling average or a block average.

A few sources have inquired about opacity monitoring data recordkeeping. Due to the voluminous data recorded and accumulated, electronic storage of the data is acceptable provided the data remains accessible by the department and can be displayed in a similar fashion as the strip charts. All recorded data must be maintained on file for a period of five years.

3. Excess Emissions

Emissions units must comply with the applicable federal and/or state excess emissions requirements. Excess emissions requirements exist for emissions units regulated under the Acid Rain Program, Standards of Performance for New Stationary Sources (NSPS), National Emissions Standards for Hazardous Air Pollutants (NESHAPs), and State Implementation Plan (SIP). Confusion during the processing of Title V permits has primarily resulted from a lack of a statement of applicability to emissions units regulated under the SIP. The SIP contains definitions for "excess

June 12, 1998 FCG letter Page 3

emissions", "existing" emissions unit, "new" emissions unit, "malfunction", "load change", "startup", and "shutdown". Excess emission requirements can be found in Rule 62-204, F.A.C., Rule 62-210.700, F.A.C., and Rule 62-4.130, F.A.C.

Some confusion results from the references or lack thereof to "new" and/or "existing" in Rule 62-210.700, F.A.C. Subsection (1) of Rule 62-210.700, F.A.C., references "any" emissions unit. Subsections (2) and (3) references "existing" emissions units. An existing emissions unit is defined in Rule 62-210.200, F.A.C., as "An emissions unit which was in existence, in operation, or under construction, or had received a permit to begin construction prior to January 18, 1972. However, "existing emissions unit" for the purposes of Rules 62-296.700 through 62-296.712 and 62-212.500, F.A.C., shall mean any emissions unit which is not defined as a new emissions unit with respect to a specific rule or provision of any of those sections. For the purpose of Rules 62-296.500 through 62-296.512, F.A.C., existing emissions units are those emissions units which were constructed or for which a construction permit was issued prior to July 1, 1979." Subsections (4), (5) and (6) do not reference "existing" or "new" emissions units. Rule 62-4.130, F.A.C., also does not reference "new" or "existing". Recently, it has been clarified that the SIP excess emissions requirements apply to SIP emission limits. The SIP excess emissions requirements do not apply to Acid Rain Program provisions or NSPS and NESHAP emission limits. The department is not authorized to vary or waive any federal Acid Rain Program, NSPS, or NESHAP requirements.

Rule 62-210.700(1), F.A.C., states that excess emissions resulting from malfunction are permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the department for longer duration. Rule 62-210.700(6), F.A.C., requires that in the case of excess emissions resulting from malfunctions, each owner or operator shall notify the department or the appropriate local program in accordance with Rule 62-4.130, F.A.C. The department rules require immediate notification of plant operation problems. For purposes of the notification to the department under Rule 62-4.130, F.A.C., *Plant Operation-Problems*, immediate means the same day, if during a workday (i.e., 8:00 a.m. - 5:00 p.m.), or the first business day after the incident, excluding weekends and holidays. Notification to the department or local program of every malfunction that results in excess emissions may not be warranted. Good judgment should be exercised. Permittees should consider the magnitude and duration of the excess emissions.

In accordance with Rule 62-296.405(1)(g), F.A.C., the permittee is required to submit to the department or the appropriate local program a written report of emissions in excess of the emission limiting standards as set forth in Rule 62-296.405(1), F.A.C., for each calendar quarter. The department does not require a form or a standard format for this written report. {Note that a form does exist for NSPS emissions units and the acid rain provision contained in 40 CFR 75.65 requires excess emissions of opacity to be reported in a format specified by the state or local air pollution control agency.} The nature and cause of the excess emissions must be explained in the quarterly report. The

June 12, 1998 FCG letter Page 4

report does not relieve the owner or operator of the legal liability for violations. All recorded data must be maintained on file by the source for a period of five years.

4. Methods of Operation

A Title V source may change among those alternative methods of operation allowed by permit provided the source maintains source logs or records to verify periods of operation in each alternative method of operation (See Rule 62-213.410, F.A.C.). Each Title V permit is required to include the approved methods of operation. Fuels such as natural gas, fuel oil, on-specification used oil, and coal have been listed in Title V permits as approved methods of operation. The plant logs or records maintained to verify periods of operation in each method of operation are required to be kept for a period of five years. The period of operation and the quantity of on-specification used oil burned is needed for these purposes. Recordkeeping of the quantity of on-specification used oil generated is not necessary.

If you should have any questions or comments, please contact Scott M. Sheplak at 850/921-9532.

Şincerely,

C. H. Fancy, P.E.

Chief

Bureau of Air Regulation

CHF/sms/k

copy to: Larry George

Pat Comer



June 9, 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. 0810010-001-AV FPL Manatee Plant Final Title V Permit

Dear Mr. Sheplak:

After reviewing the subject Title V permit, FPL has identified several issues which need to be addressed. Each issue is described as follows:

Page 5 of 17 Specific Condition A.1. <u>Permitted Capacity</u>: The new basis of the permit describes heat input regular record keeping is not required and we understand this is not a permit limit, but may be used to set other emission limits. To make this information clearer to an operator we suggest the following language in the permitting note. "The heat input limitations......(..), to establish <u>other</u> appropriate emission limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input.}"

Page 11 of 17 Specific Condition A.27. Operating Conditions During Testing - PM and VE. We request this language reflect the language of the basis changes to the permit. The following language is recommended. "When required....... Particulate and visible emissions shall be conducted......, and shall be conducted while injecting the maximum quantity additives approved by the Department consistent with normal operating practices."

Page 14 of 17 Specific Condition A.36. <u>Sulfur Dioxide Emission Report</u>. FPL requests this report be deleted. It is unduly burdensome. Sulfur dioxide is controlled or monitored in conditions A.9., A.15., A.23., A.24., plus the Annual Air Operating Report includes totals of sulfur dioxide. Sulfur dioxide data is also submitted to EPA quarterly. This requirement does not appear in approved FPL Title V permits which are in effect. We ask this report be replaced with a fuel sulfur report which would list all deliveries for the month, similar to that discussed with Vito Giarrusso of FPL for the draft Riviera Title V permit. We suggest the following language:

<u>Fuel Analysis Report</u>: The owner or operator shall by the fifteenth day of each month, submit to the (appropriate agency), a report of fuel analyses that are representative of each fuel fired in the preceding month. The report shall document the heating value, the density or specific gravity and the percent sulfur content by weight of each fuel fired.

Page 2 Manatee Plant Title V 6/9/98

Appendix S Table 1-1 Please change the brief description to eliminate the heat input. Marked up tables are attached.

Appendix S Table 2-1 Pollutant Parameter SO2 the testing frequency should be As received and the CMS column should be blank. Marked up table is attached.

Thank you for your prompt attention to the issues raised in this correspondence. Please do not hesitate to contact me at (561) 691-7057 if I may be of further assistance.

Sincerely,

Mary Archer

Sr. Environmental Specialist Florida Power & Light Company



June 28, 2004

RECEIVED

JUL 06 2004

BUREAU OF AIR REGULATION

Ms. Trina Vielhauer Chief, Bureau of Air Regulation Department of Environmental Protection Mail Station #5505 2600 Blair Stone Road Tallahassee, Florida 32399-2400

RE:

Manatee Power Plant FDEP Air Permit No. 08100100-008-AV PSD Applicability Report; Second of Five Annual Reports

Dear Ms. Vielhauer:

Pursuant to Specific Condition A.40 of the above referenced permit, FPL submits the following PSD Applicability Report. The PSD Applicability Report is required as a result of adding natural gas as a permitted fuel to Manatee Units 1&2. The report is required to be submitted for five years that are representative of normal post-change operation following the addition of natural gas. Natural gas was added to Unit 2 during 2002 and to Unit 1 in 2003.

Table 1 below summarizes the 2003 Actual Emissions compared to the "Past Actual Emissions" (Years 2000 & 2001 average) for the Manatee Plant.

Pollutant	Past Actual Emissions (Years 2000 & 2001 Average) Tons per Year	2003 Actual Emissions		
Carbon Monoxide (CO)	18,987	16,936	AOR (oil), Initial Performance Test (gas)	
Nitrogen Oxides (NOx)	8762	7232	EPA Scorecard	
Particulate Matter (PM)	2384	2106	AOR (oil), Initial Performance Test (gas)	
Sulfur Dioxide (SO ₂)	31,753	27,231	EPA Scorecard	
Volatile Organic Compounds (VOC)	149	136	AOR (oil), Initial Performance Test (gas)	

Table 1

All 2003 Actual Emissions decreased over the Past Actual Emissions. The decreases in emissions are only slightly related to the physical change of adding natural gas as a permitted fuel, but mostly, the result of Manatee Plant's decreased utilization during 2003.

In 2003 the generation and fuel usage at Manatee Plant Units 1&2 decreased approximately 8% over the 2000 & 2001 (Base Year) average (Ref. Figs. 1 & 2 below).

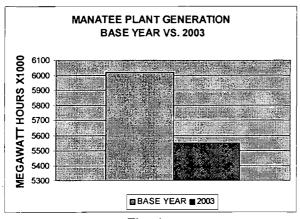


Fig. 1

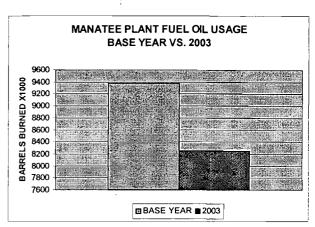
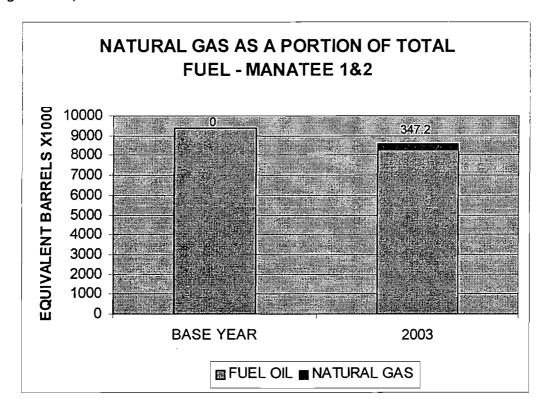


Fig. 2

In 2003 natural gas represented approximately 4% of the total fuel used at Manatee 1&2 (Ref. Fig. 3 below).



Fia. 3

In accordance with Specific Condition A.40.b and 40 CFR 52.21(b)(33)(ii), Table 2 below shows the 2003 annual emissions excluding the portion of emissions that are unrelated to the physical change of adding natural gas to Units 1&2.

Pollutant	Past Actual Emissions (Years 2000 & 2001 Average) Tons per Year	2003 Actual Emissions Tons	2003 Actual Emissions Excluding Emissions Unrelated to The addition of Natural Gas
Carbon Monoxide (CO)	18,987	16,936	(532)
Nitrogen Oxides (NOx)	8762	7232	(829)
Particulate Matter (PM)	2384	2106	(87)
Sulfur Dioxide (SO ₂)	31,753	27,231	(1982)
Volatile Organic Compounds (VOC)	149	136	(1)

Table 2

From the table, the decreases in all pollutants are generally due to the decrease in utilization, however some modest decreases can be attributed to natural gas firing.

In summary, the addition of natural gas to Manatee Units 1&2 did not cause a significant increase in annual emissions and should not be subject to PSD review. Should you have any questions, or require additional information, please feel free to contact me at (941) 776-5211 or Kevin Washington at (561) 691-2877.

Sincerely,

Paul Plotkin

Plant General Manager

Pane Ciothi

cc: A. A. Linero, P.E. Administrator New Source Review Section, DEP James Cleary, Department of Environmental Protection Southwest Florida District Rob Brown, Manatee County Environmental Management Department

BEST AVAILABLE COPY

FPL

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

October 22, 1999

Scott

RECEIVE

OCT 25 1999

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

BURBAU OF AIR REGULATION

Re:

FPL -Manatee Plant

Proposed Burner Change-out

Notice of Intent

Dear Mr.Fancy:

In response to the telephone conversations with Scott Sheplak on October 13, 1999 and Al Linero on October 14, 1999, this letter is provided as notice of Manatee Plant's intent to replace the existing burners. The replacement burners are planned for installation on Unit 2 in the spring of 2000 and on Unit 1 in the fall of 2000.

Background

The Manatee Plant's original burners were Forney Type "QPWRMA" with mechanical atomization and were "state of the art" in the late 1970's when they were installed. In late 1994 and early 1995 in an effort to increase the combustion efficiency of these burners, the plant changed from mechanical atomization to steam atomization. Due to the age of the burners, it has become somewhat difficult to acquire replacement parts. To improve our visible emission performance and increase the overall reliability of these burners, we would like to replace them with burners manufactured by ABB Combustion Services, Ltd (formerly International Combustion, Ltd). We have had very successful emission control and operating experience with this type of burner at our Martin Plant in Indiantown, Florida since 1985. Benefits

The replacement burners will be better for the environment as addressed in the attached PE signed & sealed documents. We expect to achieve emission reductions in opacity, NOx, and CO. These emission reductions will be maximized during hours of high load operations typically associated with hot summer days. The replacement burners will be mechanically atomized. This will reduce the use of water by approximately 30-37 million gallons per year.

The replacement burners will be both more reliable and natural gas compatible to allow the option of fuel flexibility in the future. Proper permit modifications would be completed for any fuel type additions.

Page 2
Notice of Intent – Manatee Burner Change-out

Based upon the above facts, and as discussed in the telephone conversations of October 13 and 14, 1999, the only requirement for this matter is satisfied by this notice of intent. If you require any additional information, please do not hesitate to call me at 561-691-7057.

Sincerely,

Mary J. Archer, QEP

Principal Environmental Specialist Florida Power & Light Company

cc: Florida Southwest District DEP - Jerry Kissel

cc: Manatee County - Air Quality Management Division



Documentation of Emissions Reductions Notice of Intent – Manatee Burner Change-out

Replacement Burner Emission Impact

There will be no increases in emissions. The following emission reductions are expected:

- Opacity
 - A reduction of 10-15 points in opacity at high loads during steady state conditions is anticipated. The permit limit for opacity is 40% at steady state conditions.
- NOx

A reduction between 20 to 30% in the average daily NOx emission rate is anticipated. This is achieved by lowering the NOx emission levels during the hours of high load operation. For example, on a typical hot summer day the total accumulative tons of NOx per unit will be reduced from 23 to 16, indicating a 30 % reduction as the maximum anticipated reduction of NOx. The permit limit for NOx is 0.30 lb/mmbtu based on a 30-day rolling average.

CO

A reduction between 20 to 30% in the CO emission rate during the hours of high load operation is anticipated.

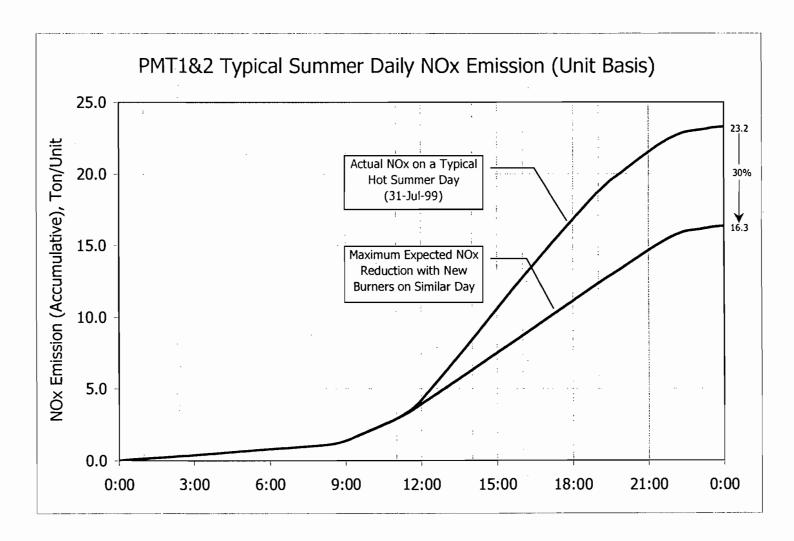
I, the undersigned, hereby certify, that: (1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions described in this notice will comply with all applicable standards for control of air pollutant emissions found in the current air operating permit including the Florida Statues and rules of the Department of Environmental Protection; (2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are based upon reasonable techniques available for calculating emissions. (3) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions described in this notice will result in a reduction of emissions as identified in this notice.

PE Signed and Sealed

Kathryn S. Salvador, Florida PE No. 54726

10/22/99 Date

PMT Emission Control Summary - Summer Daily NOx Emission (990731)





July 23, 1998

RECEIVED

JUL 3 0 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. 0810010-001-AV

FPL Manatee Plant Final Title V Permit

Dear Mr. Sheplak:

As we discussed in our phone conversation of July 22, 1998, I failed to mention in my previous letter of June 23, 1998, that the attached statement in the Department letter, dated July 16, 1998, needs a minor revision due to changes in the sulfur compliance sampling which occurred after the original understanding concerning the report language. The plant agreed to limit the sulfur content per the as received oil concentration. The reporting then should provide results of the compliance sampling, the as received analysis, and not create an additional sampling & analysis.

We request the Department change the words "fuel fired" to "fuel received" as indicated in the following:

Fuel Analysis Report: The owner or operator shall, by the fifteenth day of each month. submit to the Department's Southwest District, Air Section, a report of fuel analyses that are representative of each fuel received in the preceding month. The report shall document the heating value, the density or specific gravity and the percent sulfur content by weight of each fuel received.

Thank you for your patience in providing consistency within the Title V permits. Please do not hesitate to contact me at (561) 691-7057 if I may be of further assistance.

Sincerely.

Mary Clicke

wary Archer
Sr. Environmental Specialist
Florida Power & Light Company

130 98 cc: Scott Sheplak



Department of Environmental Protection

Lawton Chiles Governor Virginia B. Wetherell Secretary

NOTICE OF ADMINISTRATIVE PERMIT CORRECTION

In the Matter of an Application for Administrative Permit Correction

Mr. J. M. Parent Plant General Manager Florida Power & Light Company 11770 U.S. Highway One North Palm Beach, FL 33408 FINAL Permit No.: 0810010-001-AV Manatee Plant

The Department has determined that several minor corrections to information contained in Final Permit Number 0810010-001-AV are required. These corrections are related to typographical errors, minor omissions, or clarification of permit conditions. These corrections are minor in nature and do not alter, modify or revise any permit requirement. This Administrative Permit Correction was processed as project number 0810010-003-AV, pursuant to Rule 62-210.360, F.A.C. The corrections are:

Specific condition A.27 shall read:

A.27. Operating Conditions During Testing - PM and VE. When required, testing for particulate matter and visible emissions shall be conducted while firing No. 6 fuel oil at the maximum allowable rate of 8650 million Btu per hour, except as provided below. Particulate and visible emissions shall be conducted under both sootblowing and non-sootblowing conditions, and shall be conducted while injecting additives consistent with normal operating practices.

Testing may be conducted while firing No. 6 fuel oil at less than 90 percent of the maximum allowable rate; however, subsequent emissions unit operation is limited as described in specific condition A.26 of this permit.

[Rules 62-4.070(3) and 62-213.440 F.A.C., AO 41-204804 Specific Condition 5, AO 41-219341 Specific Condition 5]

Specific condition A.35 shall read:

A.35. Fuel Analysis Report. The owner or operator shall, by the fifteenth day following each calendar month, submit to the Department's Southwest District, Air Section, a report of fuel analyses that are representative of each fuel fired in the preceding month. The report shall document the heating value, density or specific gravity, and the percent sulfur content by weight of each fuel fired.

[Rule 62-4.070(3) and 62-213.440, F.A.C., AO 41-204804 Specific Condition 6, AO 41-219341 Specific Condition 6]

The brief description of emissions units in Table 1-1 of Appendix S shall read:

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

The row of Table 2-1 of Appendix S for the pollutant SO₂ shall read:

Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
SO ₂	Oil	Fuel sampling & analysis	As received		1 est Duration		A.9, A.15, A.23 & A.24

This permit correction corrects and is a part of Final Permit Number 0810010-001-AV. This permit correction is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit correction) has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by

Notice of Administrative Permit Correction
 Florida Power & Light Company, Manatee Plant
 Permit Number 0810010-001-AV
 Page 2 of 2

filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT CORRECTION was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 07-16-98 to the person(s) listed:

Mr. J. M. Parent *

Mr. William M. Reichel, FPL *

Hon. Joe McClash, Manatee County Board of County Commissioners *

Ms. Mary Archer, FPL

Mr. Bill Thomas, DEP SWD

Ms. Carla E. Pierce, USEPA, Region 4 (INTERNET E-mail Memorandum)

Ms. Yolanda Adams, USEPA, Region 4 (INTERNET E-mail Memorandum)

Clerk Stamp

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

ow G. Magice O

(Date)

Date:

6/29/98 10:26:53 AM

From:

Joseph Kahn TAL

Subject:

Condition Change for FPL Manatee TV Permit

Gerald Kissel TPA

Jerry,

Scott asked me to e-mail the proposed change for FPL Manatee's TV permit. Specific condition A.35 currently reads:

A.35. Sulfur Dioxide Emission Report. The owner or operator shall, by the thirtieth day following each calendar quarter, submit to the Department's Southwest District, Air Section, a summary report of the daily averages of sulfur dioxide emissions in pounds per hour (or tons per hour) and pounds per million Btu, for each month of the preceding calendar quarter. The report shall include the quantities of each fuel fired and document the heating value, density or specific gravity, and the percent sulfur content of the fuel fired. [Rule 62-4.070(3) and 62-213.440, F.A.C., AO 41-204804 Specific Condition 6, AO 41-219341 Specific Condition 6]

Prior to issuance of this permit we agreed to change that language to match more appropriately the compliance method specified in the Draft TV permit. Unfortunately, we forgot to make this change in the Final permit. So, this condition should have read:

A.35. Sulfur Dioxide Emission Report. The owner or operator shall, by the thirtieth day following each calendar quarter, submit to the Department's Southwest District, Air Section, a report of the monthly averages of sulfur dioxide emissions in pounds per million Btu, for each month of the preceding calendar quarter. The report shall include the quantities of each fuel fired and document the heating value, density or specific gravity, and the percent sulfur content of the fuel fired, based on the monthly analyses. [Rule 62-4.070(3) and 62-213.440, F.A.C., AO 41-204804 Specific Condition 6, AO 41-219341 Specific Condition 6]

We were going to change the condition as shown above, but FPL requested we change it instead to the following, which better reflects the compliance method for the fuel sulfur limitation that FPL agreed to use to satisfy EPA's objection to this permit. (There was no fuel sulfur limitation in the Draft permit, but FPL accepted a fuel sulfur limitation in the Final permit.)

A.35. Fuel Analysis Report. The owner or operator shall, by the fifteenth day of each month, submit to the Department's Southwest District, Air Section, a report of fuel analyses that are representative of each fuel fired in the preceding month. The report shall document the heating value, the density or specific gravity and the percent sulfur content by weight of each fuel fired. [Rule 62-4.070(3) and 62-213.440, F.A.C. and request of the applicant, June 9, 1998]

We really have no problem with what FPL has requested, but wanted to check with you first. Please let me know if you have any opinion either way. Thanks.

-Joe

RECEIVED

AUG 03 1998

BUREAU OF AIR REGULATION the know if you have any opinion

Are fund to comment find. But I have

for the permit of the final result.

A permit of the final result.



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:

Mr. R. Douglas Neeley March 10, 1998 Page 2 of 9

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

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

The owner or operator shall conduct testing for visible emissions while firing fuel oil for each simple-cycle turbine unit upon that turbine's exceeding 400 hours of operation on fuel oil, and every 150 hours of operation on fuel oil thereafter, in any given federal fiscal year (October 1 through September 30). Such

Mr. R. Douglas Neeley March 10, 1998 Page 3 of 9

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

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

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

The permit for Lauderdale will be revised:

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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 Page 4 of 9

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 March 10, 1998 Page 5 of 9

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

Add to the statement of basis for each permit:

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

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

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

Manatee. Port Everglades. Riviera and Turkev 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

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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. <u>Sulfur Dioxide</u>. 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,

Mr. R. Douglas Neeley March 10, 1998 Page 6 of 9

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:

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The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. A note below the permitted capacity condition clarifies this. Regular record keeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5),F.A.C., included in the permit, is requires measurement of process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.

Add to each permit below the condition titled <u>Permitted Capacity</u>:

{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.

Mr. R. Douglas Neeley March 10, 1998 Page 7 of 9

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. <u>Sulfur Dioxide</u>. 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. <u>Sulfur Dioxide</u>. 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

Mr. R. Douglas Neeley March 10, 1998 Page 8 of 9

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. <u>Sulfur Dioxide</u>. 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 SO₂ 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. <u>Sulfur Dioxide</u>. Sulfur dioxide emissions shall not exceed 2.75* pounds per million Btu heat input, as measured by applicable compliance methods. Compliance shall be based on the total heat input from all liquid and gaseous fuels burned. The sulfur dioxide emission limitation shall apply at all times including startup, shutdown, and load change.

[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 Turkev 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

Scott,

1 - 10 mg

Attached is some language which FPL proposes to be used for the Manatee permit to address EPA's concerns regarding SO2 compliance. This language was taken from the Ft. Myers permit and adapted to Manatee. I believe it addresses EPA's concerns. Call me or email me if you have comments.

- Rich (See attached file: SO2LANG.DOC)

PS - We'll be sending you some Particulate data by sometime tomorrow.

Specific Condition A.24. The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure if such a procedure is incorporated into the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620 F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedences of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards.

The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however as an alternate sampling procedure authorized by permit, the permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor 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% by weight, and blending 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 will be performed prior to transferring oil to the Manatee plant to ensure a sulfur content to the permit emission limitation. Reports of percent sulfur content of these analyses will be maintained at the power plant facility for a minimum of 5 (five) years.



Department of Environmental Protection

Lawton Chiles Governor Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400 December 18, 1997

Virginia B. Wetherell Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. J. M. Parent Plant General Manager FP&L Manatee Plant Post Office Box 14000 Juno Beach, Florida 33408

Re:

EPA Objection to PROPOSED Title V Permit No. 0810010-001-AV

Plant Name: FP&L - Manatce Plant

Dear Mr. Parent:

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, FFL 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

Memorandum

To:

Vito Giarrusso, FPL

Sent Via Fax: 561/691-7070

From: Joe Kahn, DEP, Title V Section

Date:

December 10, 1997

Re:

FPL Manatee Proposed Permit Comments

Proposed Permit No. 0810010-001-AV

Per our memorandum dated December 9, 1997, we included the incorrect version of specific condition A.34., Sulfur Dioxide Emission Report. Pursuant to your request, we will change specific condition A.34. as follows:

A.34. Sulfur Dioxide Emission Report. The owner or operator shall, by the thirtieth day following each calendar quarter, submit to the Department's Southwest District, Air Section, a report of the monthly averages of sulfur dioxide emissions in pounds per million Btu, for each month of the preceding calendar quarter. The report shall include the quantities of each fuel fired and document the heating value, density or specific gravity, and the percent sulfur content of the fuel fired, based on the monthly analyses. [Rule 62-4.070(3) and 62-213.440, F.A.C., AO 41-204804 Specific Condition 6, AO 41-219341 Specific Condition 6]

As we discussed, if EPA files a formal objection to this permit, this change may not be made, or other changes may be required to resolve that objection. If you have any questions, please feel free to call me with any questions at 850/488-1344.

Memorandum

To:

Vito Giarrusso, FPL

Sent Via Fax: 561/691-7070

From:

Joe Kahn, DEP, Title V Section

Date:

December 9, 1997

Re:

FPL Manatee Proposed Permit Comments

Proposed Permit No. 0810010-001-AV

Per your letter dated December 8, 1997, we understand that you would like to make a minor revision to specific condition A.34., Sulfur Dioxide Emission Report, to delete the words "in tons" from the first sentence.

Please note that permits AO 41-204804 and AO 41-219341 specify that sulfur dioxide emissions be reported in pounds per hour and pounds per million Btu, and the requirement to report mass emissions was derived from those permits. However, condition A.34. can be changed to remove the reference to pounds per hour and tons per hour since this change does not affect the compliance method. So, pursuant to your request, we will make the following minor change. Please note that strikethroughs indicate deletions.

A.34. Sulfur Dioxide Emission Report. The owner or operator shall, by the thirtieth day following each calendar quarter, submit to the Department's Southwest District, Air Section, a summary report of the daily averages of sulfur dioxide emissions in pounds per hour (or tons per hour) and pounds per million Btu, for each month of the preceding calendar quarter. The report shall include the quantities of each fuel fired and document the heating value, density or specific gravity, and the percent sulfur content of the fuel fired.

[Rule 62-4.070(3) and 62-213.440, F.A.C., AO 41-204804 Specific Condition 6, AO 41-219341 Specific Condition 6]

As we discussed, if EPA files a formal objection to this permit, this change may not be made, or other changes may be required to resolve that objection. If you have any questions, please feel free to call me with any questions at 850/488-1344.



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

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Phone #

Fax#

December 8,1997

Mr. Joseph Kahn, P.E. Tallahassee, FL 32399-2400

State of Florida
Department of Environmental Protection
Division of Air Resources Management
Title V Section
Mail Station #5505
2600 Blair Stone Road

Re: Proposed Permit No. 0810010-001-AV FPL Manatee Plant Proposed Permit Comments

Dear Mr. Kahn:

Per our telephone conversation this morning reguarding your letter dated December 2, 1997, we would like to make a minor revision to specific condition A.34., Sulfur Dioxide Emission Report. The change is to delete the words "in tons" from the first sentence.

Very truly yours,

Vito J. Giarrusso

Senior Environmental Specialist

Florida Power & Light Company

Memorandum

To: Vito Giarrusso, FPL

Sent Via Fax: 561/691-7070

From: Joe Kahn, DEP, Title V Section

Date: December 2, 1997

Re: FPL Manatee Proposed Permit Comments

Proposed Permit No. 0810010-001-AV

Per our telephone conversation November 25, 1997, we agreed to minor changes, but not exactly to what you mentioned in your letter of November 26, 1997.

Specific conditions A.24.b. and A.34. can be changed to reflect the compliance method based on monthly averages. We agree these changes are minor, and can be made prior to the Final permit because they clarify that the record keeping should be consistent with the compliance method. We believe the applicable requirements exist to require record keeping on at least a monthly basis, so we propose to change these conditions to the following. Note that if EPA files a formal objection to this permit, the following changes may not be made, or other changes may be required to resolve that objection.

Please note that strikethroughs indicate deletions and underlines indicate additions.

- **A.24.** For each emissions unit, 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:
 - a. Determine and record monthly the **as-fired** fuel sulfur content, percent by weight, for liquid fuels fired using 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 as-fired fuel. As-fired fuel oil heating value, density or specific gravity, and the percent sulfur content shall be determined by taking a daily sample of the fuel fired, combining those samples into a monthly composite, and analyzing a representative sample of the composite.
 - b. Record daily monthly the amount of each fuel fired, and the density or specific gravity; the heating value, and the percent sulfur content by weight of the fuel fired derived from the monthly analysis maintain records of the monthly analyses of the heating value of each fuel, density or specific gravity, and the percent sulfur content by weight of each fuel, to enable calculations of sulfur dioxide emissions.
- c. Calculate and record the daily average sulfur dioxide emissions in pounds per hour (or tons per hour) and pounds per million Btu, using the records above.

[Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C.]

Memo to Vito Giarrusso, FPL December 2, 1997 Page 2 of 2

A.34. <u>Sulfur Dioxide Emission Report</u>. The owner or operator shall, by the thirtieth day following each calendar quarter, submit to the Department's Southwest District, Air Section, a <u>summary</u> report of the <u>daily monthly</u> averages of sulfur dioxide emissions <u>in tons</u> in pounds per hour (or tons per hour) and pounds per million Btu, for each month of the preceding calendar quarter. The report shall include the quantities of each fuel fired and document the heating value, density or specific gravity, and the percent sulfur content of the fuel fired, <u>based on the monthly analyses</u>.

Rule 62-4.070(3) and 62-213.440, F.A.C., AO 41-204804 Specific Condition 6, AO 41-219341 Specific Condition 6]



November 26, 1997

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

Re: Proposed Permit Nos. 0810010-001-AV FPL Manatee Plant Title V Permit

Dear Mr. Sheplak:

Pursuant to my telephone conversation with Joe Kahn of your staff yesterday afternoon, this letter is to request minor changes to the subject proposed permit.

Specific Conditions A.24.b. & c. and A.34. currently contain language that require additional recordkeeping and reporting over what is currently required in the Air Operating for the Manatee facility. For example, Specific Condition A.34. states: "a summary report of the daily averages of sulfur dioxide emissions in pounds per hour (or tons per hour), and pounds per million btu, for each month of the preceding calenar quarter." This language is more stringent than that contained in the current air operating permit #AO41-204804 and would impose a significant burden on the facility personnel to prepare the data.

We request that Specific Conditions A.24.b. and A.24.c. be removed entirely. We further request that the Specific Condition A.34 be modified to reflect the language contained in Specific Condition 6 in the current AO permit as follows:

"...FPL shall submit a summary of the monthly averages for fuel sulfur content, heat content and sulfur dioxide emission rate on a quarterly bsis, within 30 days following the end of each calendar quarter"

Mr. Kahn and I agreed that these changes were minor in nature and that there were no applicable requirements that would oblige FPL to undertake these activities.

RECEIVED

DÉC 01 1997

BUREAU OF AIR REGULATION Please do not hesitate to contact me at (561) 691-7061 if I may be of further assistance.

Very truly yours,

Uil Gramman

Vito Giarrusso

Sr. Environmental Specialist

Florida Power & Light Company

12/197 cc: Scott Sheplake

BEST AVAILABLE COPY



Department of Environmental Protection

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

Virginia B. Wetherell Secretary

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Mr. J. M. Parent Plant General Manager Florida Power & Light Company PO Box 14000 Juno Beach, FL 33408

ORDER EXTENDING PERMIT EXPIRATION DATE

Manatee Plant, Facility ID No.: 0810010-001-AV

Section 403.0872(2)(b), Florida Statutes (F.S.), specifies that any facility which submits to the Department of Environmental Protection (Department) a timely and complete application for a Title V permit "is entitled to operate in compliance with its existing air permit pending the conclusion of proceedings associated with its application."

Section 403.0872(6), F.S., provides that a proposed Title V permit which is not objected to by the United States Environmental Protection Agency (EPA) "must become final no later than fifty-five (55) days after the date on which the proposed permit was mailed" to the EPA.

Pursuant to the Federal Acid Rain Program as defined in rule 62-210.200, Florida Administrative Code (F.A.C.), all Acid Rain permitting must become effective on January 1 of a given year.

This facility which will be permitted pursuant to section 403.0872, F.S., (Title V permit) will be required to have a permit effective date subsequent to the final processing date of the facility's Title V permit.

To prevent misunderstanding and to assure that the above identified facility continues to comply with existing permit terms and conditions until its Title V permit becomes effective, it is necessary to extend the expiration date(s) of its existing valid permit(s) until the effective date of its Title V permit. Therefore, under the authority granted to the Department by section 403.061(8), F.S., IT IS ORDERED:

- 1. The expiration date(s) of the existing valid permit(s) under which the above identified facility is currently operating is (are) hereby extended until the effective date of its permit-issued pursuant to section 403.0872; F.S., (Title V permit);
- 2. The facility shall comply with all terms and conditions of its existing valid permit(s) until the effective date of its Title V permit;
- 3. The facility will continue to comply with the requirements of Chapter 62-214, F.A.C., and the Federal Acid Rain Program, as defined in rule 62-210.200, F.A.C., pending final issuance of its Title V permit.

PETITION FOR ADMINISTRATIVE REVIEW

The Department will take the action described in this Order unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 of the Florida Statutes (F.S.). Mediation under Section 120.573, F.S., will not be available for this proposed action.

A person whose substantial interests are affected by the Department's proposed decision may petition for an administrative hearing in accordance with sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000. Petitions must be filed within 21 days of receipt of this Order. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 of the Florida

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

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.Manatee Plant, Facility ID No.: 0810010-001-AV

Page 2 of 3

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Statutes, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department File Number, and the county in which the project is proposed;
 - (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action:
 - (d) A statement of the material facts disputed by the petitioner, if any;
- (e) A statement of the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the action or proposed action addressed in this notice of intent.

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

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

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

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

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

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

This Order constitutes final agency action unless a petition is filed in accordance with the above paragraphs.

RIGHT TO APPEAL

Any party to this Order has the right to seek judicial review of the Order pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000; and, by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of

Manatee Plant, Facility ID No.: 0810010-001-AV

Page 3 of 3

Appeal. The Notice of Appeal must be filed within 30 days from the date the Notice of Agency Action is filed with the Clerk of the Department.

DONE AND ORDERED this 32 day of of, 1997 in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

HOWARD L. RHODES, Director Division of Air Resources Management

Twin Towers Office Building

Mail Station 5500

2600 Blair Stone Road

Tallahassee, Florida 32399-2400

850/488-0114

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this order and all copies were sent by certified mail before the close of business on to the person(s) listed:

Mr. J. M. Parent, FPL

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on

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

acknowledged.

Clerk)

Copy By Regular Mail To:

Mr. William Reichel, FPL

Mr. Richard G. Piper, FPL

Mr. Ronnie L. Adams, P.E., FPL

Mr. Bill Thomas, P.E., DEP SW District, Air Section

Hon. Joe McClash, Manatee Co. Commission

BEST AVAILABLE COPY

the reverse side?	 Print your name and address on the reverse of this form so that we can return this card to you. Attach this form to the front of the mailpiece, or on the back if space does not permit. 		I also wish to receive the following services (for an extra fee): 1. Addressee's Address 2. Restricted Delivery	
Is your <u>RETURN ADDRESS</u> completed on	3. Article Addressed to: Mr. J. M. Parent Plant General Manager Florida Power & Light Company P. O. Box 14000 Juno Beach, Florida 33408	4b. Service Registere Express I	Type cd Certified Mail Insured Cept for Merchandise COD	using Retur
	5. Received By: (Print Name) 1. Color of the second of th	7. Date of Delivery 8. Addressee's Address (Only if requeste and fee is paid)		Thai
	PS Form 3811 , December 1994		Domestic Return Receipt	_

P 263 585 133

US Postal Service

Receipt for Certified Mail No Insurance Coverage Provided. Do not use for International Mail (See reverse) Sent to Mr. J. M. Parent Street & Number
P. O. Box 14000

Post Office, State, & ZIP Code
Juno Beach, Florida 33408 \$ Postage Certified Fee Special Delivery Fee Restricted Delivery Fee Return Receipt Showing to Whom & Date Delivered

Return Receipt Showing to Whom Date, & Addressee's Address Return Receipt Showing to Whom, Date, & Addressee's Address TOTAL Postage & Postmark or Date 11/03/97 FP&L - Ma ID#08100 TOTAL Postage & Fees FP&L - Manatee Plant

ID#0810010-001-AV ...:



August 07, 2002

RECEIVED
AUG 12 2002

BUREAU OF AIR REGULATION

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 Officials to Manatee Plant - 0810010-001-AV

Dear Scott:

Enclosed is the Responsible Official Notification Form to add Mr. Larry Lariosa and Mr. Mike Lunday as Additional Responsible Officials (R.O.) for the Manatee Plant. FPL requests that an administrative change be made to the permit referenced above to accommodate the addition of Messrs. Lariosa and Lunday as an additional R.O.s.

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

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:							
Flande Power + light							
2. Site Name: 3. County: Marate							
4. Title V Air Operation Permit/Project No. (leave blank for initial Title V applications):							
0810010-001-AV							
Notification Type (Check one or more)							
☐ INITIAL: Notification of responsible officials for an initial Title V application.							
☐ RENEWAL : Notification of responsible officials for a renewal Title V application.							
CHANGE: Notification of change in responsible official(s).							
Effective date of change in responsible official(s) 8/5/02							
Primary Responsible Official							
1. Name and Position Title of Responsible Official:							
Paul Plotkin Part General Manager							
Paul Plotkin Part General Manager 2. Responsible Official Mailing Address: Organization/Firm: Flenda Power + Light Manatce Plant							
Organization/Firm: Flanda Ford Fagur 11 revalue 1 1200 Street Address: 19050 state Road 62							
City: Parish State: FC Zip Code: 34219							
3. Responsible Official Telephone Numbers:							
3. Responsible Official Telephone Numbers: Telephone: (941) 776 - 5211 Fax: (941) 776 - 5219							
3. Responsible Official Telephone Numbers: Telephone: (94) 776 - 521 Fax: (94) 776 - 5219 4. Responsible Official Qualification (Check one or more of the following options, as applicable):							
 3. Responsible Official Telephone Numbers: Telephone: (94) 776 - 521\ Fax: (94) 776 - 5219 4. Responsible Official Qualification (Check one or more of the following options, as applicable): [For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a 							
 Responsible Official Telephone Numbers: Telephone: (94) 776 - 521\ Fax: (94) 776 - 5219 Besponsible Official Qualification (Check one or more of the following options, as applicable): For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for 							
 3. Responsible Official Telephone Numbers: Telephone: (94) 776 - 521\ Fax: (94) 776 - 5219 4. Responsible Official Qualification (Check one or more of the following options, as applicable): [For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a 							
 Responsible Official Telephone Numbers: Telephone: (94) 776 - 52 Fax: (94) 776 - 52 							
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 Responsible Official Telephone Numbers: Telephone: (94) 776 - 52 \ Fax: (94) 776 - 52 \ Responsible Official Qualification (Check one or more of the following options, as applicable): [For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. [] For a partnership or sole proprietorship, a general partner or the proprietor, respectively. [] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. [] The designated representative at an Acid Rain source. 							
 Responsible Official Telephone Numbers: Telephone: (94) 776 - 52 \rmathbb{T}							
3. Responsible Official Telephone Numbers: Telephone: (94) 776 - 52 Fax: (94) 776 - 52 4. Responsible Official Qualification (Check one or more of the following options, as applicable): [For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. [For a partnership or sole proprietorship, a general partner or the proprietor, respectively. [For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. [The designated representative at an Acid Rain source. 5. Responsible Official Statement: I, the undersigned, am a responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this notification. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, I certify that I							
 Responsible Official Telephone Numbers: Telephone: (94) 776 - 52 Fax: (94) 776 - 52 For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. For a partnership or sole proprietorship, a general partner or the proprietor, respectively. For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. The designated representative at an Acid Rain source. Responsible Official Statement: 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. 							
3. Responsible Official Telephone Numbers: Telephone: (94) 776 - 52 Fax: (94) 776 - 52 4. Responsible Official Qualification (Check one or more of the following options, as applicable): [For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. [For a partnership or sole proprietorship, a general partner or the proprietor, respectively. [For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. [The designated representative at an Acid Rain source. 5. Responsible Official Statement: I, the undersigned, am a responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this notification. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, I certify that I							

DEP Form No. 62-213.900(8)

Effective: 6-02-02

Additional Responsible Official
1. Name and Position Title of Responsible Official:
2. Responsible Official Mailing Address: Organization/Firm: Florida Power + Light Manafee Plant
2. Responsible Official Mailing Address:
Organization/Firm: Flonda Hower Hight I lanatee Plant
Street Address: 19050 ST RU 62
City: Parnsh State: FL Zip Code: 34219
3. Responsible Official Telephone Numbers:
Telephone: (941) 776 - 5280 Fax: (941) 776 - 5219
4. Responsible Official Qualification (Check one or more of the following options, as applicable):
[For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge
of a principal business function, or any other person who performs similar policy or decision-
making functions for the corporation, or a duly authorized representative of such person if the
representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.
For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
[] For a municipality, county, state, federal, or other public agency, either a principal executive
officer or ranking elected official.
[] The designated representative at an Acid Rain source.
Additional Responsible Official
1. Name and Position Title of Responsible Official:
Illike Lunday Seniar PGO Lender
2. Responsible Official Mailing Address: Organization/Firm: Flonde Power + Ught Manate Plant
Street Address: 19050 5+ RD 62
3. Responsible Official Telephone Numbers:
Telephone: (941) 776 - 5230 Fax: (941) 776 - 5219
4. Responsible Official Qualification (Check one or more of the following options, as applicable):
[Y] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge
of a principal business function, or any other person who performs similar policy or decision-
making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or
operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.
[] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
[] For a municipality, county, state, federal, or other public agency, either a principal executive
officer or ranking elected official.
[] The designated representative at an Acid Rain source.

DEP Form No. 62-213.900(8)

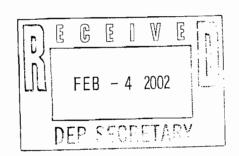
Effective: 6-02-02



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

January 25, 2002

Mr. David B. Struhs, Secretary Department of Environmental Protection **Executive Office** 10th Floor Douglas Building Commonwealth Boulevard Tallahassee, FL 32399



Re: Change of Responsible Official Designation Manatee Plant - 0810010-001-AV

Dear Secretary Struhs:

This correspondence is to certify the "Responsible Official" for the Title V permit, 0810010-001-AV of the Manatee Plant operated by Florida Power & Light Company. The following person is authorized to act as the "Responsible Official" for that facility, pursuant to State Rule 62-213.200, F.A.C.

Respon	sihle	Offic	rial
1762POII	31DIC		Jiai

Title

Facility

Paul Plotkin General Manager, Manatee Facilities Manatee Plant	

The designated "Responsible Official" is hereby authorized to act on behalf of Florida Power & Light Company on all permit related activities for the facility.

Sincerely,

Adalberto Alfonso Vice President

Power Generation Division

Florida Power & Light Company

Cc: Scott Sheplak

FDEP DARM

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Gerald Kissel

FDEP Southwest District

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FEB 0 5 2002

DIVISION OF AIR RESOURCES MANAGEMENT Date: From: 10/30/97 4:10:08 PM Joseph Kahn TAL

Subject:

FPL Manatee

To:

Scott Sheplak TAL

I spoke with Rich Piper of FPL. FPL's official position is that it is not interested in changing the compliance method at Manatee to the COMS.

Date: From: 10/29/97 4:33:24 PM Joseph Kahn TAL

Subject:

FPL Manatee

To:

Scott Sheplak TAL

I spoke with Rich Piper regarding our conference call with EPA and the outstanding issues with EPA about FPL Manatee. He will get back with me regarding using the COMS for compliance instead of the annual VE, by Friday if possible.



August 16, 1996

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

AUG 2 3 1996

BUREAU OF RECEIVED

AIR REGULATION

BUREAU OF RECULATION

BUREAU OF RECULATION

AIR REGULATION

Re: Electronic Submittal of FPL Manatee Plant Title V Application

Dear Mr. Fancy:

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

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

Very truly yours,

Richard Piper

Senior Environmental Specialist Florida Power & Light Company

CC:

DEP South District Office (w/o att)



Department of Environmental Protection

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

Virginia B. Wetherell Secretary

December 16, 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

The Honorable Joe McClash
Commissioner, Manatee County Board of
County Commissioners
P. O. Box 1000
Bradenton, Florida 34206

Dear Mr. McClash:

RE: Request for Notification of Any Proposed Title V Air Operation Permitting Action

Thank you for your letter of November 6, which requested notification of any proposed agency action regarding the initial Title V operation permits for the facilities located in Manatee County. We have already placed your name on the "to be copied" list for the Florida Power & Light's Manatee Plant, which is the only Title V source initial permit application that the Tallahassee Title V Section will be processing that is located in Manatee County. Therefore, the Department's intent package of the DRAFT Title V operation permit will be mailed to you at the same time as the applicant and others.

We do not have a mechanism to maintain a blanket request for agency actions (i.e., air permitting actions) in a geographical area. However, if you are aware of any other air permit request being processed by the Department in which you might have an interest, please contact the air permitting authority and inform them of your interests. The permitting authorities that could process an air permit request for a source located in Manatee County are:

Department of Environmental Protection Division of Air Resources Management Bureau of Air Regulation 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Telephone: 904/488-1344

Fax: 904/922-6979

Contacts:

C. H. Fancy, Bureau Chief

A. A. Linero, P.E. Administrator, New Source Review Section Major source construction permitting (not Title V processing) The Honorable Joe McClash Letter: December 16, 1996

Page 2 of 2

Department of Environmental Protection Southwest District Air Resources Management 3804 Coconut Palm Drive Tampa, Florida 33619-821

Telephone: 813/744-6100

Fax: 813/744-6084

Contacts: W. C. Thomas, District Air Program Administrator

G. J. Kissel, P.E. III, Air Permitting Section

Title V and non-Title V permitting

The Tallahassee Title V Section has no information about any other permit processing other than the one that is mentioned above.

You are correct that the Manatee County Environmental Management Department-Air Quality Division does get a copy of all air permitting actions in Manatee County. Therefore, you could be kept aware of all air permitting actions there by the public notices placed in the newspaper and by requesting that your county's Air Quality Division notify you upon receipt of any proposed agency actions, air or otherwise. Also, if you have access to the DEP world wide web site, then you will be able to review all of Florida's Title V permits (i.e., DRAFT, PROPOSED and FINAL) @ http://www.dep.state.fl.us/air and selecting EPA Review from the menu. The Department has already begun placing Title V permits on the site.

I hope that your requests have been answered by this letter. If not, please give me a call at 904/488-1344 or write to me at the above letterhead address.

Sincerely,

R. Bruce Mitchell

Environmental Administrator

Title V Section-Bureau of Air Regulation

RBM/m

Enclosure

cc: C. H. Fancy, BAR

Patricia Comer, Esq., DEP W. C. Thomas, SWD

G. J. Kissel, SWD

Karen Collins, MCEMD



MANATEE COUNT

BOARD OF COUNTY COMMISSIONERS

November 6, 1996

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BUREAU OF AIR REGULATION

ivir. Scott Sheplak Department of Environmental Regulation Twin Towers 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Dear Mr. Sheplak:

It is my understanding when the Title 5 permits are mailed to you and you determine they are completed, a draft of the permit is forwarded to several agencies, i.e. Manatee County Environmental Management Department, the District office of DEP and the Federal EPA. I would like to be added to that list to receive a copy of any draft Title 5 permit submitted from Manatee County. I would also like to be copied if any modification is requested in a Title 5 permit.

Thanking you in advance for your cooperation in this matter, I remain

Sincerely yours,

County Commissioner

District 7

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

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BUREAU OF AIR REGULATION

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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

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

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EPA's Review of Proposed Title V Permits

for Florida Power & Light

Dear Mr. Rhodes:

DEC 12 1997

BUREAU OF AIR REGULATION

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). 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 Enclosures 1 through 7 contain a detailed objection.

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. 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

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.
- 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. 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 nonsootblowing 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 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) <u>Deviation from Applicable Requirement</u> 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 SO₂ standard for units 001 and 002. In instances where the SIP regulations do not indicate an averaging time

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

Florida rule 62-296.405(1)(f)1.b. states that 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, standard which we understand to be in place to ensure compliance with the National Ambient Air Quality Standards (NAAQS). As indicated in DEP's response to comments memorandum dated October 23, 1997, DEP has determined that the averaging period for this standard should be 3 hours. Accordingly, the best course of action would be to use the CEMs data to derive 3 hour averages. Properly conducted fuel sampling may be an adequate substitute for the Manatee plant since it is permitted to burn only oil and gas. However, EPA realizes that conducting fuel analysis based on a 3 hour average would be too burdensome for the source. Given the relative consistency of the oil and gas fuel sources, 24 hour averaging of the fuel data may be sufficiently representative of the source's compliance with the 3 hour emission limit. Therefore, EPA is willing to accept a 24 hour averaging time for the fuel sampling analysis to ensure compliance with the applicable standard. The Region has accepted a 24 hour averaging time, which is still protective of the NAAQS, in other title V permits where the averaging time is not specified in the regulations. Please, refer to the Turkey Point Plant permit, condition A.19., for an example of an acceptable sampling protocol.

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

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

- (6) Exemptions from Permitting: Appendix E-1- It is our understanding that the changes to F.A.C. rules 62-213.300, and 62-213. 420-440 addressed in a preliminary draft dated June 2, 1997, were officially adopted by the State on November 13, 1997. Therefore, the State needs to revise the permit, specifically Section II, item 6 and Appendix E-1, to delete the term "exempted from permitting" and replace it with the language contained in rules 62-213.300, and 62-213.420-440. Additionally, as agreed in previous conversations between Regional staff and the State, the State needs to remove the reference to F.A.C. rule 62-4, since it in not related to activities that may be considered "insignificant" under the title V program.
- (7) Periodic Monitoring It is unclear how the permittee will show compliance with the heat input limitations in condition A.l. 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 There does not, however, appear to be any minute or more. conditions that require the source to record the time, date, and duration of these events. The permit must require that the facility keep records of these events to ensure compliance with this requirement.

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

1. Section II, Facility-Wide Conditions

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

Enclosure 2

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

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

- (1) Exemptions from Permitting: Appendix E-1- It is our understanding that the changes to F.A.C. rules 62-213.300, and 62-213.420-440 addressed in a preliminary draft dated June 2, 1997, were officially adopted by the State on November 13, 1997. Therefore, the State needs to revise the permit, specifically Section II, item 6 and Appendix E-1, to delete the term "exempted from permitting" and replace it with the language contained in rules 62-213.300, and 62-213.420-440. Additionally, as agreed in previous conversations between Regional staff and the State, the State needs to remove the reference to F.A.C. rule 62-4, since it in not related to activities that may be considered "insignificant" under the title V program.
- (2) Periodic Monitoring It is unclear how the permittee will show compliance with the heat input limitations in conditions A.1. and B.1. of the permit. The permit must require that the facility maintain fuel usage records to demonstrate compliance with the applicable heat input limit. Since this recordkeeping will be used to determine compliance with an hourly heat input rate limitation, the permit should contain an hourly fuel usage recordkeeping requirement in order to ensure that the facility remains in compliance with the hourly heat input limit.

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

- 1. <u>Subsection D</u> 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.

Periodic Monitoring - The permit does not require sufficient periodic monitoring to ensure compliance with the applicable particulate matter standard. Condition A.7 of the permit specifies a PM/PM10 emission limitation of 14.7 lb/hr for each combined-cycle combustion turbine fired with natural gas, and an emission limitation of 58 lb/hr for each combustion turbine fired with oil. Annual testing of PM using Method 5 or 17 is required in condition A.19 of the permit for combustion turbines with fuels used for more than 400 hours in the preceding 12-month period. It has not been demonstrated that an annual emission test alone will constitute the basis for a credible certification of compliance with the particulate emission standard. If the State believes that no additional monitoring is warranted to ensure compliance with the particulate standard, it must

provide a technical demonstration in the statement of basis identifying the rationale for basing the compliance certification only on data from a short-term annual test. Otherwise, the permit must be revised to identify additional monitoring that will be conducted in order to ensure compliance with the particulate matter standard.

- (3) Periodic Monitoring It is unclear how the permittee will show compliance with the heat input limitations in conditions A.3, and B.1 of the permit. The permit must require that the facility maintain fuel usage records to demonstrate compliance with the applicable heat input limit. Since this recordkeeping will be used to determine compliance with an hourly heat input rate limitation, the permit should contain an hourly fuel usage recordkeeping requirement in order to ensure that the facility remains in compliance with the hourly heat input limit. As an example, please refer to condition B.25, which ensures compliance with condition B.2, the heat input limitation for each bank of gas turbines.
- (4)Practical Enforceability - Condition A.13 limits the sulfur content of light distillate oil fired in the turbines to a maximum of 0.3 weight percent and to a 12-month average value of no more than 0.2 weight percent. In order to constitute a practically enforceable requirement, this condition must be revised to clearly specify the procedures for calculating the sulfur content of the oil on a 12-month rolling average basis. This clarification is necessary because the current permit language could be interpreted to mean that the 12-month average sulfur content is calculated either as of the average of the daily sulfur analyses or as a weighted average based upon the sulfur content of the oil and amount burned on a daily basis. Of these two approaches, the only one that we consider acceptable is to calculate the average sulfur content on a mass-weighted basis. The basis for this position is that if Florida Power and Light is allowed to merely average the daily sulfur content of the oil, the company could burn large quantities of higher sulfur oil on a few days and achieve compliance by burning smaller quantities of lower sulfur content on a large number of days. Since this method of complying would circumvent the of the permit's intent to limit the annual average sulfur content of the oil combusted, the permit must be revised to eliminate the ambiguity about the calculation approach that will used to verify compliance with the annual average sulfur content limit.
- (5) Exemptions from Permitting: Appendix E-1- It is our understanding that the changes to F.A.C. rules 62-213.300, and 62-213.420-440 addressed in a preliminary draft dated June 2, 1997, were officially adopted by the State on

November 13, 1997. Therefore, the State needs to revise the permit, specifically Section II, item 6 and Appendix E-1, to delete the term "exempted from permitting" and replace it with the language contained in rules 62-213.300, and 62-213.420-440. Additionally, as agreed in previous conversations between Regional staff and the State, the State needs to remove the reference to F.A.C. rule 62-4, since it in not related to activities that may be considered "insignificant" under the title V program.

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

1. <u>VOC Emission Limit</u> - 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. <u>Fuel Monitoring Schedule</u> 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:

- Periodic Monitoring The permit does not require sufficient (1)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) <u>Deviation from Applicable Requirement</u> - 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) <u>Periodic Monitoring</u> - Condition A.6 allows particulate matter emissions up to an average of 0.3 lbs. per million

BTU heat input during a 3-hour period in any 24-hour period for soot blowing and load change. There does not, however, appear to be any conditions that require the source to record the time, date, and duration of these events. The permit must require that the facility keep records of these events to ensure compliance with this requirement.

- (5) Periodic Monitoring It is unclear how the permittee will show compliance with the heat input limitations in conditions A.2, and B.3 of the permit. The permit must require that the facility maintain fuel usage records to demonstrate compliance with the applicable heat input limit. Since this recordkeeping will be used to determine compliance with an hourly heat input rate limitation, the permit should contain an hourly fuel usage recordkeeping requirement in order to ensure that the facility remains in compliance with the hourly heat input limit.
- (6) Exemptions from Permitting: Appendix E-1- It is our understanding that the changes to F.A.C. rules 62-213.300, and 62-213.420-440 addressed in a preliminary draft dated June 2, 1997, were officially adopted by the State on November 13, 1997. Therefore, the State needs to revise the permit, specifically Section II, item 4 and Appendix E-1, to delete the term "exempted from permitting" and replace it with the language contained in rules 62-213.300, and 62-213.420-440. Additionally, as agreed in previous conversations between Regional staff and the State, the State needs to remove the reference to F.A.C. rule 62-4, since it in not related to activities that may be considered "insignificant" under the title V program.

Enclosure 5

U.S. EPA Region 4 Objection Proposed Part 70 Operating Permit Florida Power and Light, Port Everglades Plant

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

(1)Periodic Monitoring - The permit does not require sufficient periodic monitoring to ensure compliance with the applicable opacity standard. The Port Everglades permit only requires an annual one hour Method 9 visible emissions reading. does not constitute adequate periodic monitoring to ensure continuous compliance with the opacity standard. 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 SO₂ 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 threehour 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) <u>Deviation from Applicable Requirement</u> - 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. understand that this variance from the SIP's quarterly testing requirement requirements was granted by a State Order. However, this variance was never submitted by the State of Florida as a SIP revision, and therefore, was never approved into the SIP. Therefore, the Port Everglades permit must ensure compliance with the requirements of the SIP as stated in rule 62-296.405(1)(a).
- (6) Deviation from Applicable Requirement Florida rule 62-296.405(1)(f) 1.a, requires all emissions units to install continuous monitoring systems for monitoring opacity. The only exemption appears to be for units that do not use emission control equipment. Since emissions from these units (units 1 through 4) are controlled with multiple cyclones, it appears that Florida regulations would require the use of COMs to determine compliance with the opacity standard. This applicable requirement must be included in the permit, or clarification must be provided as to why this requirement does not apply.
- (7) Periodic Monitoring Conditions A.7 and B.7 allow

particulate matter emissions up to an average of 0.3 lbs. per million BTU heat input during a 3-hour period in any 24-hour period for soot blowing and load change. In addition, Condition A.5 allows visible emissions up to 60 percent opacity during soot blowing and load changes. A load change is defined to occur when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more. There does not, however, appear to be any conditions that require the source to record the time, date, and duration of these events. The permit must require that the facility keep records of these events to ensure compliance with this requirement.

(8) Exemptions from Permitting: Appendix E-1- It is our understanding that the changes to F.A.C. rules 62-213.300, and 62-213. 420-440 addressed in a preliminary draft dated June 2, 1997, were officially adopted by the State on November 13, 1997. Therefore, the State needs to revise the permit, specifically Section II, item 6 and Appendix E-1, to delete the term "exempted from permitting" and replace it with the language contained in rules 62-213.300, and 62-213.420-440. Additionally, as agreed in previous conversations between Regional staff and the State, the State needs to remove the reference to F.A.C. rule 62-4, since it in not related to activities that may be considered "insignificant" under the title V program.

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

1. Conditions A.11 and A.13 indicate that the permittee shall demonstrate compliance with the sulfur dioxide limit using CEMs. Condition A.13 also appears to offer the source the opportunity to use EPA test methods 6, 6A, 6B, 6C for demonstrating compliance with the applicable SO2 standard. If the source is required to use CEMs as a method of demonstrating compliance, it is unclear why Condition A.13 indicates alternative test methods. The Region recommends that the language in A.13, which allows the above test methods for measuring sulfur dioxide emissions, be removed from Condition A.13 in order to avoid confusion.

Condition A.13 also allows the source to obtain an alternate procedure under the provisions of Rule 62-297.620, F.A.C.. Rule 62-297.620 (Exceptions and Approval of Alternate Procedures and Requirements) does not allow the source to obtain an alternative to continuous monitoring requirements. Therefore, it appears that the language in Condition A.13

which suggests that the source has the option of obtaining an alternative procedure to CEMs for demonstrating compliance with the SO_2 limit should be removed to avoid confusion. Please, refer to the Turkey Point permit which contains requirements for CEMs in conditions A.9 and A.13, but does not include the confusing language mentioned above.

Enclosure 6

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

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

- (1) Periodic Monitoring The permit does not require sufficient periodic monitoring to ensure compliance with the applicable opacity standard. The Riviera permit only requires an annual one hour Method 9 visible emissions reading. This does not constitute adequate periodic monitoring to ensure continuous compliance with the opacity standard. Since continuous opacity monitors (COMs) have been installed on the units in question, these monitors should be used to ensure compliance with the opacity standard. Requiring that the opacity monitors be used for conducting periodic monitoring imposes little or no additional burden on FP&L.
- (2) Periodic Monitoring - The permit does not require sufficient periodic monitoring to ensure compliance with the applicable particulate matter standard. The Riviera permit requires an annual emission test to verify compliance with the applicable three-hour particulate emission standard. 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) <u>Deviation from Applicable Requirement</u> 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.
- Deviation from Applicable Requirement Florida rule 62-(4)296.405(1)(a) requires fossil fuel steam generators to comply with a 20 percent opacity standard, with the exception that sources electing to test for particulate matter emission compliance quarterly shall be allowed visible emissions of 40 percent opacity. The Riviera permit requires compliance with a 40 percent opacity standard; however, it only requires an annual compliance test for particulate matter emissions. We understand that this variance from the SIP's quarterly testing requirement was granted by a State Order. However, this variance was never submitted by the State of Florida as a SIP revision, and therefore, was never approved into the SIP. Therefore, the Manatee permit must ensure compliance with the requirements of the SIP as stated in rule 62-296.405(1)(a).
- (5) Deviation from Applicable Requirement Condition A.9 states that 'The sulfur dioxide emission limitation shall apply at all times including startup, shutdown, and load change, but shall not apply during malfunction provided best operational practices to minimize emissions are adhered to and the duration of excess emissions are minimized and does not exceed two hours in any 24-hour period.' These units do not have sulfur dioxide controls. Please provide a definition

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

- (6) Exemptions from Permitting: Appendix E-1- It is our understanding that the changes to F.A.C. rules 62-213.300, and 62-213. 420-440 addressed in a preliminary draft dated June 2, 1997, were officially adopted by the State on November 13, 1997. Therefore, the State needs to revise the permit, specifically Section II, item 6 and Appendix E-1, to delete the term "exempted from permitting" and replace it with the language contained in rules 62-213.300, and 62-213.420-440. Additionally, as agreed in previous conversations between Regional staff and the State, the State needs to remove the reference to F.A.C. rule 62-4, since it in not related to activities that may be considered "insignificant" under the title V program.
- 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 There does not, however, appear to be any minute or more. 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 SO₂ 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 SO₂ 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:

- 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. 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 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.
 - Other monitoring approach demonstrated by the permittee to be a valid method for assuring compliance with the applicable three-hour

particulate matter standard.

- (3) Exemptions from Permitting: Appendix E-1- It is our understanding that the changes to F.A.C. rules 62-213.300, and 62-213.420-440 addressed in a preliminary draft dated June 2, 1997, were officially adopted by the State on November 13, 1997. Therefore, the State needs to revise the permit, specifically Section II, item 6 and Appendix E-1, to delete the term "exempted from permitting" and replace it with the language contained in rules 62-213.300, and 62-213.420-440. Additionally, as agreed in previous conversations between Regional staff and the State, the State needs to remove the reference to F.A.C. rule 62-4, since it in not related to activities that may be considered "insignificant" under the title V program.
- (4) Deviation from Applicable Requirement -Florida rule 62-296.405(1)(a) requires fossil fuel steam generators to comply with a 20 percent opacity standard, with the exception that sources electing to test for particulate matter emission compliance quarterly shall be allowed visible emissions of 40 percent opacity. The Turkey Point permit requires compliance with a 40 percent opacity standard; however, it only requires an annual compliance test for particulate matter emissions. We understand that this variance from the SIP's quarterly testing requirement was granted by a State Order. However, this variance was never submitted by the State of Florida as a SIP revision, and therefore, was never approved into the SIP. Therefore, the Turkey Point permit must ensure compliance with the requirements of the SIP as stated in rule 62-296.405(1)(a).
- (5) Periodic Monitoring It is unclear how the permittee will show compliance with the heat input limitations in conditions A.1, and B.1 of the permit. The permit must require that the facility maintain fuel usage records to demonstrate compliance with the applicable heat input limit. Since this recordkeeping will be used to determine compliance with an hourly heat input rate limitation, the permit should contain an hourly fuel usage recordkeeping requirement in order to ensure that the facility remains in compliance with the hourly heat input limit.
- (6) Periodic Monitoring Condition A.8 allows particulate matter emissions up to an average of 0.3 lbs. per million BTU heat input during a 3-hour period in any 24-hour period for soot blowing and load change. In addition, Condition A.6 allows visible emissions up to 60 percent opacity during soot blowing and load changes. A load change is defined to

occur when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more. There does not, however, appear to be any conditions that require the source to record the time, date, and duration of these events. The permit must require that the facility keep records of these events to ensure compliance with this requirement.

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

- 1. Section III, condition A.3 allows the use of magnesium hydroxide fuel additives. However, in the permit application, FP&L stated their "right to use other additives if they are suitable." If the State's intent is to limit the use of additives to only magnesium hydroxide, it should clearly establish that in the permit. However, the State may want to address the use of other additives via alternative operating scenarios, or another type of procedure.
- 2. Section II, Facility-Wide Conditions.

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

Condition 8, as written does not appear to be complete. It seems as though the language, "No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity without taking reasonable precautions to prevent such emissions." should be added as the first sentence in the paragraph.

3. Condition B.6 states that Unit-003 is subject to a NO_x standard such that "emissions shall not exceed 4.75 lb per million Btu heat input. These limits shall apply at all times except during periods of startup, shutdown, or malfunction as provided by Rule 62-210.700, F.A.C." Condition B.8 requires infrequent testing, on the order of "Annual emission testing shall be conducted during each federal fiscal year (October 1 - September 30). In addition, testing is waived entirely during years in which units operate less than 400 hours." Because this requirement

entails infrequent sampling, we recommend that information justifying this frequency be added to the statement of basis. Such justification could include a demonstration that the unit is unlikely to exceed this limit.

Engineer's Notes, ETC. for

file 5/28/97

Appendix H-1, Permit History/ID Number Changes

Florida Power & Light Manatee Power Plant [DRAFT/PROPOSED/FINAL]Permit No.: 0810010-001-A\

Facility ID No.: 0810010

Permit History (for tracking purposes):

E.U.

<u>ID No</u>	<u>Description</u>	Permit No.	Issue Date	Expiration Date	Extended Date	Revised Date(s)
-001	877 MW Steam Generator #1	AO41-204804	08/30/93	01/14/97		
-002	877 MW Steam Generator #2	AO41-219341	08/30/93	01/14/97		

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

From: Facility ID No.: 40MAN410010

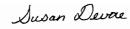
To: Facility ID No.: 0810010

Notes:

1 - AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.

2 - AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.

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





Department of **Environmental Protection**

Lawton Chiles Governor

Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Virginia B. Wetherell RECEIVE

MAY 28 1997

BUREAU OF AIR REGULATION

NOTICE OF PERMIT AMENDMENT

CERTIFIED MAIL Mr. Antonio Rodriquez Vice President, Power Generation Business Unit Florida Power & Light Company

P.O. Box 14000

Juno Beach, Florida 33408

Dear Mr. Rodriguez:

Re: Manatee Power Plant - Units 1 and 2

Operation Permit Amendments (ARMS Project 0810010-002-AO)

Permit Numbers: A041-204804 (Manatee Unit No. 1) A041-219341 (Manatee Unit No. 2)

On October 21, 1996, the Department received your request to amend the above permits. The requested amendments consisted of approval to dispose of non-hazardous boiler cleaning waste by incineration and evaporation through injection into the boilers and to add propane as a fuel type for startup for Manatee Units 1 and 2. Department has reviewed this request and determined that this change is not considered a modification as defined in Rule 62-210.300, F.A.C. and is consistent with current Department guidance. As a result, the requested change can be accomplished by an operation permit amendment. Establishing of the additional permit requirements as federally enforceable will be accomplished at a later date through the issuance of the Title V major source operation permit for this facility.

Therefore, permit numbers AO41-204804 and AO41-219341 are hereby amended as follows:

UNIT NO. 1, PERMIT NO. AO41-204804

Page 1 of 7 Change the 1st paragraph of the Description

From:

For operation of Unit No. 1 at Florida Power & Light Company's (FPL) Manatee Power Plant. Unit 1 is an 800 MW class (with the capability of generating up to 900 MW gross) Foster Wheeler oil fired steam The maximum heat input rate while firing No. 6 fuel oil generator. is 8,650 million (MM) Btu per hour.

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

To:

For operation of Unit No. 1 at Florida Power & Light Company's (FPL) Manatee Power Plant. Unit 1 is an 800 MW class (with the capability of generating up to 900 MW gross) Foster Wheeler oil fired steam generator. Fuels fired in this boiler are No. 6 residual fuel oil, No. 2 fuel oil, natural gas, propane (primarily as an ignition fuel), and used oil from FPL operations. The maximum heat input rate while firing No. 6 fuel oil is 8,650 million (MM) Btu per hour.

<u>UNIT NO. 2</u>, <u>PERMIT NO. AO41-219341</u>

Page 1 of 7 Change the 1st paragraph of the Description

From:

For operation of Unit No. 2 at Florida Power & Light Company's (FPL) Manatee Power Plant. Unit 2 is an 800 MW class (with the capability of generating up to 900 MW gross) Foster Wheeler oil fired steam generator. The maximum heat input rate while firing No. 6 fuel oil is 8,650 million (MM) Btu per hour.

To:

For operation of Unit No. 2 at Florida Power & Light Company's (FPL) Manatee Power Plant. Unit 2 is an 800 MW class (with the capability of generating up to 900 MW gross) Foster Wheeler oil fired steam generator. Fuels fired in this boiler are No. 6 residual fuel oil, No. 2 fuel oil, natural gas, propane (primarily as an ignition fuel), and used oil from FPL operations. The maximum heat input rate while firing No. 6 fuel oil is 8,650 million (MM) Btu per hour.

UNIT NO. 1, PERMIT NO. AO41-204804 and UNIT NO. 2, PERMIT NO. AO41-219341

Page 2 of 7 Change Specific Condition No. (3)

From:

(3) Permitted Fuels:

The only fuels authorized to be burned in this source are, (a) No. 6 residual fuel oil, (b) No. 2 fuel oil, (c) natural gas, or (d) used oil from FPL operations. These fuels may be mixed or burned simultaneously.
[Requested in the permit application].

<u>To:</u>

(3) <u>Permitted Fuels:</u>

The only fuels authorized to be burned in this source are, (a) No. 6 residual fuel oil, (b) No. 2 fuel oil, (c) natural gas, (d) propane (not to exceed 1 million gallons per year based on a 12 month rolling average), or (e) used oil from FPL operations. These fuels may be mixed or burned simultaneously. [Requested in operation permit amendment request dated October 10, 1996]

Page 7 of 7 Change Specific Condition No. (14)

From:

(14) <u>Disposal of Spent Boiler Cleaning Chemicals - Rule 17-4.070(3)</u>, F.A.C.

FPL shall not dispose of spent boiler cleaning chemicals by injecting them into this source.

To:

(14) <u>Disposal of Spent Boiler Cleaning Chemicals - Rule 62-4.070(3), F.A.C.</u>

Non-hazardous boiler chemical cleaning waste may be disposed of by incineration and/or evaporation through injection into the boiler under the following conditions:

- (a) Upon completion of the cleaning process and prior to waste disposal, representative sampling will be conducted pursuant to 40 CFR 261 Appendix I or other appropriate FDEP approved Comprehensive Quality Assurance Plan sampling technique. Analyses by the Toxicity Characteristic Leaching Procedure (TCLP) for toxicity characteristic metals will be performed to determine whether or not the accumulated waste is hazardous. If the waste is determined to be non-hazardous, then it may be incinerated and/or evaporated in this fossil fuel fired boiler through injection.
- (b) The quantity of non-hazardous boiler chemical cleaning waste injected into this boiler shall not exceed 50 gallons per minute and shall not be done during boiler start-up. During the period of injection the boiler operating temperature shall be maintained and necessary steps that represent best operational practice to minimize excess emissions shall be taken. Records of the date, time (beginning and end), and quantity (gallons) of waste material injected shall be maintained for each time that non-hazardous boiler chemical

cleaning waste is injected into this boiler. These records shall be retained for at least a three (3) year period and made available upon request.

Procedures for administrative hearing, mediation, and variance/waiver are described below.

Administrative Hearing

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this permit. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition (or a request for mediation, as discussed below) within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 of the Florida Statues, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number, and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by the petitioner;
- (e) A statement of the facts that the petitioner contends warrant reversal or modification of the Department's action;
- (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the permit.

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

Mediation

A person whose substantial interests are affected by the Department's permitting decision, may elect to pursue mediation by asking all parties to the proceeding to agree to such mediation and by filing with the Department a request for mediation and the written agreement of all such parties to mediate the dispute. The request and agreement must be filed in (received by) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

A request for mediation must contain the following information:

- (a) The name, address, and telephone number of the person requesting mediation and that person's representative, if any;
- (b) A statement of the preliminary agency action;
- (c) A statement of the relief sought; and
- (d) Either an explanation of how the requester's substantial interests will be affected by the action or proposed action addressed in this permit or a statement clearly identifying the petition for hearing that the requester has already filed, and incorporating it by reference.

The agreement to mediate must include the following:

- (a) The names, addresses, and telephone numbers of any persons who may attend the mediation;
- (b) The name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time;
- (c) The agreed allocation of the costs and fees associated with the mediation;
- (d) The agreement of the parties on the confidentiality of discussions and documents introduced during mediation;
- (e) The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen;
- (f) The name of each party's representative who shall have authority to settle or recommend settlement; and
- (g) The signatures of all parties or their authorized representatives.

As provided in section 120.573 of the Florida Statutes, the timely agreement of all parties to mediate will toll the time limitations imposed by sections 120.569 and 120.57 for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement

of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such a modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under sections 120.569 and 120.57 remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

Variance/Waiver

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

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, FL 32399-3000.

The <u>petition</u> must specify the following information:

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

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

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

* * * * * * * * *

This permit is final and effective on the date filed with the Clerk of the Department unless a timely petition for an administrative hearing is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 62-103.070, F.A.C., or a party requests mediation as an alternative remedy before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. Upon timely filing of a petition or a request for an extension of time to file the petition or a request for mediation, this permit will not be effective until further Order of the Department.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate procedure, with the Clerk of the Department in the Office of General Counsel, Douglas Building, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

This amendment letter <u>must be attached to and becomes a part of permit Nos. AO41-204804 and AO41-219341</u>. If you have any questions please call Mr. David Zell of my staff at (813) 744-6100, ext. 118.

Sincerely,

W.C. Thomas, P.E.

Director Air Program Administrator Southwest District

DRZ/

copies (non-Certified) to:

- Susan Devore, FDEP BAR Tallahassee, Title V Permit Section
- Manatee County Environmental Action Commission

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT AMENDMENT and all copies were mailed by certified mail before the close of business on 5/27/97 to the listed persons.

FILING AND ACKNOWLEDGEMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

from Bonne Righ 5/27/1997
Clerk Date

Date: From: 4/29/97 2:23:22 F

David Zell TPA Subject:

RE: FPL/Manatee, #0810010

The project (0810010-002-AO) I have been assigned is an AO amendment to add propane as a permitted ignition fuel and authorize the disposal of non-hazardous boiler cleaning waste by incineration in the boilers. I hope to get these amendments drafted in the next 2-3 weeks (Day 90 is 06/21).

Dave Zell, SWD Air

Florid Department of Environmental Protection

TO:

Bill Thomas, SWD

FROM:

Bruce Mitchell

DATE:

April 29, 1997

SUBJECT:

Completeness Review of an Application Package for a Title V Operation Permit

Florida Power & Light Co., Manatee: 0810010-001-AV

Enclosed is an application package for a Title V operation permit that is being processed in Tallahassee. Please review the package for completeness and respond in writing by May 30, 1997, if you have any comments. Otherwise, no response is required.

It is very important to verify the compliance statement regarding the facility, since we do not have a readily effective means of determining compliance at the time the application was submitted. Please advise if you know of any emissions unit(s) that were not in compliance at that time and provide supporting information. You should have a copy on file of the original initial Title V permit application submittal. Also, please do not write on these documents.

If there are any questions, please call the project engineer, Susan DeVore, at 904/488-1344 or SC: 278-1344.

RBM/bjb

Enclosure

مراه

Susan DeVore Perding File

MANATEE COUNTY

BOARD OF COUNTY COMMISSIONERS

Second State of the State of th

January 8, 1997

VIA FAX: 904-922-6979 (904-488-1344 confirmation) and REGULAR MAIL

Mr. John C. Brown, Jr.
Administrator, Title V Programs
Florida Department of Environmental Protection
2600 Blairstone Road - Twin Towers
Mail Station 5505
Tallahassee, Florida 32399-2400

Re: Permit Renewal Conditions for Manatee Units 1 and 2 - Florida Power & Light, Parrish, FL

Dear Mr. Brown:

I am the County Commissioner for the District 1 seat on the Manatee County Board of County Commissioners. District 1 includes the site of the Florida Power and Light power plant in Parrish, Manatee County, which is also sometimes referred to as Manatee Units 1 and 2.

As an individual Commissioner elected to represent the interests of 46,000-plus Manatee County residents who are my constituents living in County Commission District 1, I am writing to request and urge that you incorporate as a condition of the renewal of the permits for Manatee Units 1 and 2 a requirement that real-time continuous emission monitoring results for Manatee Units 1 and 2 be reported electronically via modem to the Manatee County Environmental Management Department ("EMD"). Through EMD, the Board of County Commissioners of Manatee County administers the Air Pollution Control Code, Ordinance No. 96-22, effective November 5, 1996, and local pollution control programs for Manatee County.

By separate letter, you also should be receiving a similar request from the Board of County Commissioners of Manatee County based on action taken yesterday at the Board's regular meeting of January 7, 1997.

If you have any questions whatsoever about the foregoing, please feel free to call me during business hours at my office (941-745-3701) or during evening / weekend hours at my home (941-776-3301).

Thank you very much for your time and attention to this matter.

Very truly yours,

Amy F. Stein
County Commissioner

District 1

RECEIVED

NOV 04 1996

DEP ROUTING AND TRANSMITTAL SLIP BUREAU OF AIR REGULATION			
TO: (NAME, OFFICE, LOCATION)	3		
1. TOM C	ASCIQ.		
2	5		
PLEASE PREPARE REPLY FOR:	COMMENTS:		
SECRETARY'S SIGNATURE	RE FPEL MANATEE 10/10/96 LETTER ATTACHED		
DIV/DIST DIR SIGNATURE	10/10/96 LETTER MITTER		
MY SIGNATURE			
YOUR SIGNATURE	WE'RE PROCESSING		
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FOR YOUR INFORMATION	NOX CAN BE GREATER		
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INITIAL AND FORWARD	(UNCONTROLLED NOX) VS.		
SHARE WITH STAFF	OIL FIRING.		
FOR YOUR FILES			
FROM:	DATE: 10/29/96 PHONE: 6100 X107		

DEP 15-026 (12/93)



October 10, 1996

D.E.P.

OCT 21 1996

TAMPA

Mr. Jerry Kissel State of Florida Department of Environmental Protection Southwest Florida District 3804 Coconut Palm Drive Tampa, Florida 33619-8318

RE: Manatee Power Plant - Units 1 and 2

Permit Nos. A041-204804 & A041-219341

Facility I.D. No.0810010

Modification of Permit - Addition of Fuel Type
& Disposal of Boiler Cleaning Waste

Dear Mr. Kissel:

The purpose of this letter is to request modification of the above listed air permits concerning disposal of non-hazardous boiler cleaning waste by incineration & evaporation by injection and to add propane as a fuel type.

A revision of specific condition number 14, page 7 of 7, is requested to allow for disposal of non-hazardous boiler cleaning waste by incineration & evaporation by injection. Disposal of non-hazardous boiler cleaning waste by incineration & evaporation by injection is addressed in the recent guidance memo (DARM-SS/CE-07) from Howard Rhodes, Director of the Division of Air Resources Management (DARM), which authorizes the injection of non-hazardous boiler chemical cleaning waste with specific injection rate limitations, plus, addresses the modification of permits prohibiting disposal of non-hazardous boiler cleaning waste by injection. The DARM memo is attached for your convenience.

The Title V permit application addressed the disposal of boiler chemical waste disposal.

Manatee Plant requests to add propane as a fuel type in the current permits A041-204804 & A041-219341. New ignitors will be installed in both units to accommodate the new fuel. This addition will incur no additional emission increases, as, propane is a cleaner burning fuel than the light oil currently used for startup. The Title V permit application for this site included propane as a fuel type.

Attached is a line diagram indicating the use of propane in the emission unit process flow.

page 2
Manatee Power Plant - Units 1 and 2
Permit Nos. A041-204804 & A041-219341
Facility I.D. No.0810010
Modification of Permit - Addition of Fuel Type
& Disposal of Boiler Cleaning Waste

A check is enclosed for \$500 to cover the administrative cost per FAC 62-4.050.

If you have any questions, please contact me at (407) 625-7637.

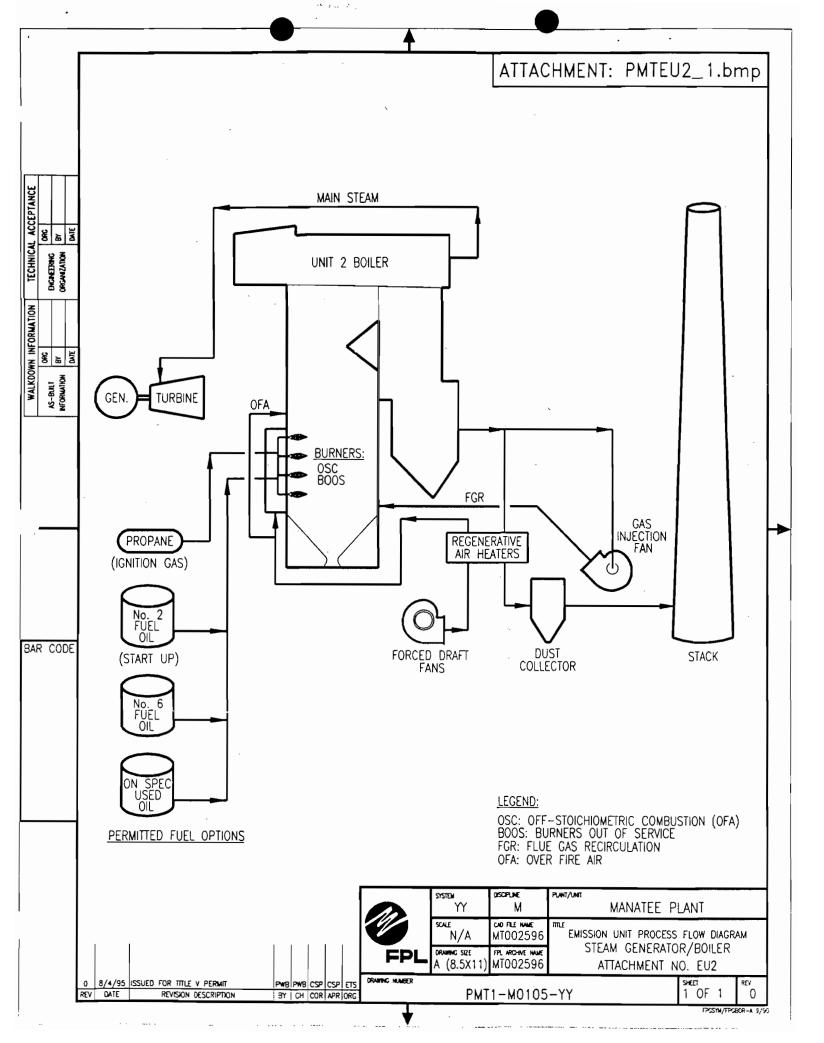
Sincerely,

Mary J. Archer

Environmental Specialist

Enclosures: (2)

cc: Manatee County Environmental Management Department.



Memorandum

Florida Department of Environmental Protection

DARM-SS/CE-07

TO:

John Ruddell, Director, Division of Waste Management

District Air Program Administrators County Air Program Administrators Bureau of Air Regulation Engineers

FROM:

Howard L. Rhodes, Director

Division of Air Resources Management

DATE:

May 24, 1996

SUBJECT: Guidance on the Disposal of Non Hazardous Boiler Chemical

Cleaning Waste by Incineration and Evaporation

The Division of Waste Management has determined that boiler chemical cleaning waste that passes the Toxicity Characteristic Leaching Procedure (TCLP) analyses for toxicity characteristic metals is non-hazardous and as such, the Waste can be disposed of by incineration and/or evaporation in the conventional manner, i.e., injection into an operating fossil fuel fired boiler. Several years ago, some of the air operating permits for fossil fuel fired boilers were amended to prohibit this practice except on a case by case basis with Department approval. This guidance memo will outline the scenarios where the disposal of non-hazardous boiler chemical cleaning waste may be disposed of by injection and subsequent incineration and/or evaporation in a fossil fuel fired boiler without case-by-case Department approval. Operating permits should be amended as soon as practical to reflect this change.

Boiler tubes (water side) are cleaned on a periodic, somewhat cyclical basis, usually every three (3) to five (5) years. Although efforts are underway to extend the cycle to as much as ten (10) to twelve (12) years, boiler chemical cleanings are still necessary.

Upon completion of the cleaning process and prior to waste disposal, representative sampling will be conducted pursuant to 40 CFR 261 Appendix I (COLIWASA) or other appropriate FDEP approved Comprehensive Quality Assurance Plan sampling technique. Analyses by the TCLP for toxicity characteristic metals will be performed to determine whether or not the accumulated waste is hazardous.

If the waste is determined to be hazardous, it will be managed in accordance with all applicable hazardous waste controls under 40 CFR 262.34, 40 CFR 265 subpart I and 40 CFR 268. If the waste is determined to be non-hazardous pursuant to such applicable controls, the waste may be incinerated and/or evaporated in a fossil fuel fired boiler.

From: DONNA HOWARD To: Rich Piper 86/07/96 16:39 Date: 8/10/98 Time: 08:38:37
HOPPING GREEN SAMS SMITH PA

John Ruddell, Director, Division of Waste Management District Air Program Administrators County Air Program Administrators Bureau of Air Regulation Engineers May 24, 1996 Page Two

Wastewater determined to be hon-hazardous can be injected in small quantities, not to exceed 50 gallons per minute, into an operating fossil fuel fired boiler. The boiler operating temperature must be maintained and necessary steps that represent best operational practices to minimize excess emissions must be taken during the injection process.

HLR/jp/cd

BEST AVAILABLE COPY

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-gX 10/29/96



Department of Environmental Protection

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

Virginia B. Wetherell Secretary

April 29, 1996

Peter C. Cunningham, Esquire Hopping Green Sams & Smith 123 South Calhoun Street Post Office Box 6526 Tallahassee, Florida 32314

Dear Mr. Cunningham:

This letter is in response to your April 12 letter regarding FP&L's Manatee Power Plant. I discussed the propriety of including FP&L's oil terminal as part of the Manatee Power Plant Title V source with Jerry Kissel, Southwest District and Pat Comer, OGC. All of us concur that the FP&L oil terminal at Port Manatee is not part of the power plant's Title V source.

Please contact me at the letterhead address or by calling (904)488-1433 if you have any further questions.

Sincerely.

Administrator, Title V Section Bureau of Air Regulation

JCB/sk

CC:

Clair Fancy

Jerry Kissel, SWD

Robert Manning, Esquire

Bill Thomas, SWD

DEP ROUTING AND TRANSMITTAL SLIP		
TO: (NAME, OFFICE, LOCATION) 3		
1. Clair Fosicy 4.		
2. John	5	
PLEASE PREPARE REPLY FOR:	COMMENTS:	
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FOR YOUR INFORMATION		
HANDLE APPROPRIATELY		
INITIAL AND FORWARD		
SHARE WITH STAFF		
FOR YOUR FILES	·	
FROM: John Brown	DATE: 4-29-96 PHONE: 488-1344	

DEP 15-026 (12/93)



Department of Environmental Protection

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

Virginia B. Wetherell Secretary

December 16, 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

The Honorable Joe McClash
Commissioner, Manatee County Board of
County Commissioners
P. O. Box 1000
Bradenton, Florida 34206

Dear Mr. McClash:

RE: Request for Notification of Any Proposed Title V Air Operation Permitting Action

Thank you for your letter of November 6, which requested notification of any proposed agency action regarding the initial Title V operation permits for the facilities located in Manatee County. We have already placed your name on the "to be copied" list for the Florida Power & Light's Manatee Plant, which is the only Title V source initial permit application that the Tallahassee Title V Section will be processing that is located in Manatee County. Therefore, the Department's intent package of the DRAFT Title V operation permit will be mailed to you at the same time as the applicant and others.

We do not have a mechanism to maintain a blanket request for agency actions (i.e., air permitting actions) in a geographical area. However, if you are aware of any other air permit request being processed by the Department in which you might have an interest, please contact the air permitting authority and inform them of your interests. The permitting authorities that could process an air permit request for a source located in Manatee County are:

Department of Environmental Protection Division of Air Resources Management Bureau of Air Regulation 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Telephone: 904/488-1344

Fax: 904/922-6979

Contacts:

C. H. Fancy, Bureau Chief

A. A. Linero, P.E. Administrator, New Source Review Section Major source construction permitting (not Title V processing) The Honorable Joe McClash Letter: December 16, 1996

Page 2 of 2

Department of Environmental Protection Southwest District Air Resources Management 3804 Coconut Palm Drive Tampa, Florida 33619-821

Telephone: 813/744-6100

Fax: 813/744-6084

Contacts: __

W. C. Thomas, District Air Program Administrator

G. J. Kissel, P.E. III, Air Permitting Section

Title V and non-Title V permitting

The Tallahassee Title V Section has no information about any other permit processing other than the one that is mentioned above.

You are correct that the Manatee County Environmental Management Department-Air Quality Division does get a copy of all air permitting actions in Manatee County. Therefore, you could be kept aware of all air permitting actions there by the public notices placed in the newspaper and by requesting that your county's Air Quality Division notify you upon receipt of any proposed agency actions, air or otherwise. Also, if you have access to the DEP world wide web site, then you will be able to review all of Florida's Title V permits (i.e., DRAFT, PROPOSED and FINAL) @ http://www.dep.state.fl.us/air and selecting EPA Review from the menu. The Department has already begun placing Title V permits on the site.

I hope that your requests have been answered by this letter. If not, please give me a call at 904/488-1344 or write to me at the above letterhead address.

Sincerely,

R Ben 7 R. Bruce Mitchell

Environmental Administrator

Title V Section-Bureau of Air Regulation

RBM/m

Enclosure

cc:

C. H. Fancy, BAR

Patricia Comer, Esq., DEP

W. C. Thomas, SWD

G. J. Kissel, SWD

Karen Collins, MCEMD

John Brown / Tom Cascio / Scott Sheplak Reggy Maloney Reading File

on the reverse side?	SENDER: Complete items 1 and/or 2 for additional services. Complete items 3, and 4a & b. Print your name and address on the reverse of this form so the return this card to you. Attach this form to the front of the mailpiece, or on the back is does not permit. Write "Return Receipt Requested" on the mailpiece below the art. The Return Receipt will show to whom the article was delivered a delivered.	if space 1. Addressee's Address	
ADDRESS completed of	3. Article Addressed to: The Honorable Joe McClash Commissioner, Manatee County Board of County Commissioners P. O. Box 1000 Bradenton, Florida 34206	4a. Article Number Z 311 902 877 4b. Service Type ☐ Registered ☐ Insured XX Certified ☐ COD ☐ Express Mail ☐ Return Receipt for Merchandise 7. Date of Delivery	
our RETURN	Signature (Agent) Signature (Agent)	8. Addressee's Address (Only if requested and fee is paid)	
S	PS Form 3811, December 1991 *U.S. GPO: 1993-352	DOMESTIC RETURN RECEIPT	

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No Insurance Coverage Provided
Do not use for International Mail

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MANATEE COUNTY BOARD OF COUNTY COMMISSIONERS

November 6, 1996

RECEIVED

NOV 14 1996

BUREAU OF AIR REGULATION

ivir. Scott Sheplak Department of Environmental Regulation Twin Towers 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Dear Mr. Sheplak:

It is my understanding when the Title 5 permits are mailed to you and you determine they are completed, a draft of the permit is forwarded to several agencies, i.e. Manatee County Environmental Management Department, the District office of DEP and the Federal EPA. I would like to be added to that list to receive a copy of any draft Title 5 permit submitted from Manatee County. I would also like to be copied if any modification is requested in a Title 5 permit.

Thanking you in advance for your cooperation in this matter, I remain

Sincerely yours,

e McClash

County Commissioner

District 7

st

INTEROFFICE MEMORANDUM

Date: 17-Oct-1995 07:45am EST

From: Hamilton Buck Oven

OVEN H

Dept: Office of Secretary

Tel No: 904/487-0472 SUNCOM: Room 953-A

TO: Tom Cascio TAL

* .

(CASCIO T)

Subject: RE: FILE COPIES

The Manatee Plant is in the middle of a site certification proceeding. It is not certified yet. It has a current Air Operating Permit that will be superseded when the certification process is completed in April 96. See Martin Costello for the draft PSD Permit.

INTEROFFICE MEMORANDUM

Date:

16-Oct-1995 10:46am EST

From:

Tom Cascio TAL

rom:

CASCIO T

Dept:

Air Resources Managemen

Tel No:

904/488-1344

SUNCOM: 278-1344

TO: Hamilton Buck Oven TAL

(OVEN H)

Subject: FILE COPIES

Buck:

Many thanks for your help this morning. But we could not find the Manatee Power Plant in the binder. Please advise.

Tom



Department of Environmental Protection

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

Virginia B. Wetherell Secretary

September 8, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Wayne C. Ondler
Manager, Environmental Affairs
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, Florida 33408

Dear Mr. Ondler:

Attached is a copy of the Technical Evaluation and Preliminary Determination, proposed BACT determination, and proposed permit to modify the existing Florida Power & Light Manatee Power Plant to accommodate the firing of Orimulsion fuel and high sulfur oil.

Please submit any written comments you wish to have considered concerning the Department's proposed action to me at the Bureau of Air Regulation. If you have any questions regarding this matter, please call Cindy Phillips at (904) 488-1344.

Sincerely,

C. H. Faney, P.E.

Chief

Bureau of Air Regulation

CHF/CP/a

Attachment

cc: Bill Thomas, SWD
Hamilton S. Oven, Siting Coordination
Peter Cunningham, HGS&S
Jewell Harper, EPA
John Bunyak, NPS
Kennard F. Kosky, P.E., KBN
Greg Johnson, Manatee County EAC
John Schatmeyer, Pinellas Co. DEM
Jerry Campbell, Hillsborough Co. EPC

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

CERTIFIED MAIL

In the Matter of an Application for Permit by:

DEP File No. PSD-FL-219 Manatee County

Florida Power & Light Company 700 Universe Boulevard Juno Beach, Florida 33408

INTENT TO ISSUE

The Department of Environmental Protection (Department) hereby gives notice of its intent to issue a construction permit (copy attached) for the proposed project, as detailed in the application specified above, for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Florida Power & Light Company, applied on September 30, 1994, for an air construction permit to modify two existing 800 MW fossil fuel-fired steam generators in order to accommodate the firing of Orimulsion fuel and high sulfur fuel oil. Pollution control equipment will be installed, including electrostatic precipitators (ESP), flue gas desulfurization (FGD) systems, and low NOx burners. In addition, handling and storage facilities will be constructed for the limestone/limerock, flyash, and gypsum.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-212 and 62-4, Florida Administrative Code (F.A.C.). The project is not exempt from permitting procedures. The Department has determined that a construction permit is required for the proposed action.

Pursuant to Section 403.815, F.S., and Rule 62-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within seven days of

provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

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

The Petition shall contain the following information;

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and,
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt

of this intent in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

C. H. Fancy, P.E., Chief Bureau of Air Regulation 2600 Blair Stone Road Tallahassee, Florida 32399 904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this INTENT TO ISSUE and all copies were mailed by certified mail before the close of business on <u>Sept. 8, 1995</u> to the listed persons.

Clerk Stamp

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

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Copies furnished to:

cc: Bill Thomas, SWD
Hamilton S. Oven, Siting Coordination
Peter Cunningham, HGS&S
Jewell Harper, EPA
John Bunyak, NPS
Kennard F. Kosky, P.E., KBN
Greg Johnson, Manatee County EAC
John Schatmeyer, Pinellas Co. DEM
Jerry Campbell, Hillsborough Co. EPC

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION NOTICE OF INTENT TO ISSUE PERMIT

PSD-FL-219

The Department of Environmental Protection (Department) gives notice of its intent to issue a construction permit, PSD-FL-219 (PA 94-35), to Florida Power and Light Company (FP&L) Manatee Power Plant in Manatee County for the modification of two existing 800 MW oil fired steam generators to allow, in addition to the currently permitted low (1.0% or less) sulfur fuel oil, the firing of Orimulsion fuel, a naturally-occurring bitumen emulsified in water. When Orimulsion fuel is not available, high (3.0% maximum) sulfur No. 6 fuel oil may be fired as the backup In addition equipment and buildings will be constructed to produce gypsum and to handle and store limestone/limerock, gypsum, and flyash. Pollution control equipment, including flue gas desulfurization, electrostatic precipitators, and low NOx burners will be installed to reduce emissions of sulfur dioxide, particulate matter, and nitrogen oxides. The maximum predicted PSD Class II nitrogen dioxide increment to be consumed by the proposed project, along with all of the other increment-consuming sources in the vicinity, is 4.2 ug/m3, annual average or 17% of the available annual increment of 25 ug/m3. The maximum predicted PSD Class I nitrogen dioxide increment to be consumed by the proposed project, along with all of the other increment-consuming sources in the vicinity of the Chassahowitkza National Wilderness Area, is 0.85 ug/m3 or 34% of the available annual increment of 2.5 ug/m3. A Determination of Best Available Control Technology was required.

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

The Petition shall contain the following information; (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action

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

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

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

Department of Environmental Protection Bureau of Air Regulation 111 S. Magnolia Drive, Suite 4 Tallahassee, Florida 32301

Department of Environmental Protection Southwest District 8407 Laurel Fair Circle Tampa, Florida 33619

Manatee County Environmental Action Commission 202 Sixth Avenue, East Bradenton, Florida 34208

Any person may send written comments on the proposed action to Mr. C. H. Fancy at the Department of Environmental Protection, Bureau of Air Regulation, Mail Station 5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. All comments received within 30 days of the publication of this notice will be considered in the Department's final determination.

Further, a public hearing can be requested by any person(s). Such request must be submitted within 30 days of this notice.

This is a preliminary determination in accordance with the Prevention of Significant Determination (PSD) rules and is subject to change based upon comments received by the USEPA, other gevernmental agencies and commissions, citizens, environmental groups, the applicant's representatives, and from comments received during the hearing scheduled to start on November 28, 1995.

Technical Evaluation and Preliminary Determination

Florida Power & Light Company Manatee County, Florida

Manatee Power Plant Modification Orimulsion Conversion Project

Department File No.: PSD-FL-219 (PA 94-35)

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

SYNOPSIS OF APPLICATION

I. GENERAL INFORMATION

A. Name and Address of Applicant

Florida Power & Light Company 700 Universe Boulevard Juno Beach, Florida 33408

B. Reviewing and Process Schedule

Date of Receipt of Application: September 30, 1994.

Completeness Review: Department letters dated December 5, 1994; February 21, 1995; and, May 3, 1994.

Response to Incompleteness Letters: Company letters received on January 17,1995; April 3, 1995; and May 4, 1995.

Application Completeness Date: May 11, 1994.

C. Facility Location

This facility is located in Manatee County approximately 5 miles east of Parrish and 2 miles south of the Hillsborough County border. The UTM coordinates are Zone 17, 367.3 km East and 3054.1 km North.

Facility Identification Code (SIC)

Major Group No. 49 - Electric, Gas and Sanitary Services.

Industry Group No. 491 - Combination Electric, Gas and Other Utility Services.

Industry Group No. 4911 - Electric and Other Services Combined.

Facility APIS/ARMS I.D. No.: 40MAN410010

D. Project Description

The Florida Power & Light Company (FP&L) Manatee Power Plant in Manatee County is classified as a major emitting facility. The proposed project consists of the modification of two existing 800 MW class (with the capability of generating up to 900 MW gross) Foster Wheeler oil fired steam generators to allow, in addition to the currently permitted low (1.0% or less) sulfur fuel oil, the firing of Orimulsion fuel, a naturally-occurring bitumen emulsified in water. When Orimulsion fuel is not available, high (3.0% maximum) sulfur No. 6 fuel oil may be fired as the backup fuel. In

addition equipment and buildings will be constructed to produce gypsum and to handle and store limestone/limerock, gypsum, and flyash. Pollution control equipment will be installed to reduce emissions of sulfur dioxide, particulate matter, and nitrogen oxides.

E. Project Emissions

The proposed project will produce potential pollutant emissions of 15,742 tons per year (TPY) of nitrogen oxides (NO $_{\rm X}$) based upon an emission limit of 0.27 lb NO $_{\rm X}$ /MMBtu; 13,643 TPY of sulfur dioxide (SO $_{\rm Z}$); 18,948 TPY of carbon monoxide (CO); 1707 TPY of particulate matter (PM/PM $_{\rm 10}$); 122 TPY of volatile organic compounds (VOC); 0.0005 TPY of beryllium (Be); 0.17 TPY of lead (Pb); 0.008 TPY of mercury (Hg); and, 374 TPY of sulfuric acid (H $_{\rm Z}$ SO $_{\rm 4}$) mist.

II. RULE APPLICABILITY

The proposed project, modification of two fossil fuel-fired steam generators and the construction of materials handling and gypsum production equipment at the power plant in Manatee County, is subject to the State Power Plant Siting Act (PPSA) and preconstruction review under the provisions of Chapter 403, Florida Statutes, Chapters 62-212 and 62-4, Florida Administrative Code (F.A.C.), and 40 CFR 60 (July 1, 1994 version).

This facility is located in an area designated attainment for all criteria pollutants in accordance with Rule 62-275.400, F.A.C.

The proposed project was reviewed under Rule 62-212.400(5), F.A.C., New Source Review (NSR) for Prevention of Significant Deterioration (PSD), because it will be a major modification to a major facility. This review consisted of a determination of Best Available Control Technology (BACT) and, unless otherwise exempted, an analysis of the air quality impact of the increased emissions. The review also includes an analysis of the project's impacts on soils, vegetation and visibility, along with air quality impacts resulting from associated commercial, residential and industrial growth.

The proposed facility shall be in compliance with all applicable provisions of Chapters 62-212 and 62-4, F.A.C., and the 40 CFR 60 (July 1, 1994 version). The proposed facility shall be in compliance with all applicable provisions of Rules 62-210.650, F.A.C.: Circumvention; Rule 62-210.700, F.A.C.: Excess Emissions; Rule 62-296.800, F.A.C.: Standards of Performance for New Stationary Sources (NSPS); Chapter 62-296, F.A.C.: Stationary Sources - Emissions Monitoring; and, Rule 62-4.130, F.A.C.: Plant Operation-Problems.

III. TECHNICAL EVALUATION

The applicant proposes to modify two existing 800 MW fossil fuel-fired steam generators in order to accommodate the firing of Orimulsion fuel and high sulfur fuel oil. Pollution control equipment will be installed, including electrostatic precipitators (ESP) and flue gas desulfurization (FGD) systems. In addition, handling and storage facilities will be constructed for the limestone/limerock, flyash, and gypsum. If necessary, an onsite backup byproduct disposal area will also be developed. New construction will occur in the area of the site referred to as the project area, comprising about 470 acres of the approximately 9,500-acre Manatee Plant site.

The primary fuel will be Orimulsion with a maximum sulfur content of 2.9%, by weight. In the event Orimulsion becomes unavailable, high (3.0% maximum, by weight) sulfur fuel oil (HSFO) will be used. The plant will also maintain its existing capability to fire low (1.0% or less) sulfur fuel oil (LSFO).

FP&L did not use the Power Plant Siting Act (PPSA) certification process for its original construction, but is requesting that this modification be processed using the PPSA certification process.

The facility is subject to PSD new source review (NSR) and BACT for nitrogen oxides (NO $_{\rm X}$) emissions because the proposed increase in annual NO $_{\rm X}$ emissions exceeds the significant emission rate of 40 tons per year. Compliance with the NO $_{\rm X}$ emission standards will be determined by continuous emission monitors (CEMs).

Particulate matter (PM/PM_{10}) emissions from the two steam generators will reduced by electrostatic precipitators. PM/PM10 emissions from the materials handling and storage equipment will be controlled by dust collectors/bag filters and by taking reasonable precautions. The facility is not subject to PSD NSR and BACT for PM/PM_{10} emissions because there will be no increase in annual PM/PM_{10} emissions, based upon proposed future actual representative annual emissions. FP&L must submit to the Department, on an annual basis for a period of 5 years from the date the facility resumes regular operation, information demonstrating that the physical and operational changes did not result in an emissions increase of PM/PM10. The gypsum and limestone materials handling operations are subject to 40 CFR Part 60 Subpart 000, Standards of Performance for Nonmetallic Mineral Processing Plants. Compliance will be determined by periodic stack tests and visible emissions tests.

Sulfur dioxide (SO₂) and sulfuric acid ($\rm H_2SO_4$) mist emissions will be reduced by the use of flue gas desulfurization systems. The facility is not subject to PSD NSR or BACT for SO₂ and $\rm H_2SO_4$ mist emissions because there will be a reduction in annual SO₂ emissions and no significant increase in annual $\rm H_2SO_4$ mist emissions as limited by permit conditions. Compliance with SO₂

emission standards will be demonstrated by use of continuous emission monitors (CEM). Compliance with $\rm H_2SO_4$ mist emission standards will be determined by periodic stack tests.

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Carbon monoxide (CO) emissions will be minimized by combustion control to assure proper fuel mixing and complete fuel combustion. The facility is subject to PSD NSR or BACT for CO emissions because the proposed increase in annual CO emissions exceeds the significant emission rates. Compliance with the emission standards will be determined by periodic stack tests.

Volatile Organic Compound (VOC) emissions will be minimized by combustion control while firing Orimulsion. The facility is not subject to PSD NSR and BACT for VOC emissions because there will be no increase in annual VOC emissions, based upon proposed future actual representative annual emissions. FP&L must submit to the Department, on an annual basis for a period of 5 years from the date the facility resumes regular operation, information demonstrating that the physical and operational changes did not result in an emissions increase of VOC. Compliance with the emission standards will be determined by periodic stack tests.

The facility is not subject to PSD NSR or BACT for fluoride, beryllium, lead or mercury emissions.

IV. AIR QUALITY REPORT

A. Introduction

The proposed project is located in an attainment area for all regulated pollutants, but will emit two pollutants at levels in excess of PSD significant amounts as shown in Table 1. These pollutants are NO_X and CO.

The air quality impact analyses required by the PSD regulations for these pollutants include:

- * An analysis of existing air quality;
- * A PSD increment analysis (NO2);
- * An Ambient Air Quality Standards (AAQS) analysis;
- * An analysis of impacts on soils, vegetation, and visibility and of growth-related air quality modeling impacts; and,
- * A "Good Engineering Practice" (GEP) stack height determination.

As shown in Table 1, the proposed project will result in a net reduction of SO_2 emissions of nearly 11,000 TPY (based on 87% capacity factor for Orimulsion). The applicant proposes an NO_X emissions increase of nearly 9,000 TPY (87% capacity factor and low NOx burners). This proposed NO_X emission increase results in NO_2 impacts which are predicted to be less than the AAQS and the PSD increments, which are long-term, annual concentrations. Potential local environmental impacts associated with the proposed increase in NOx emissions include: 1) increased annual deposition of nitrates on

the surrounding watershed and Tampa Bay, and 2) short-term impacts on the nearby Tampa Bay ozone nonattainment area. Rough estimates of between 0.3 and 0.8 percent increase in nitrogen deposition from this project have been given by the applicant. However, at the present time no deposition standards exist to judge what the effects of increased annual deposition might be on the Tampa Bay area. Effects of NO_X emissions on ozone formation are basically a short-term phenomena. There are no approved regulatory techniques available for evaluating NO_X emissions from power plants on ozone formation. However, the applicant has attempted to address this issue by providing some air dispersion modeling information through the use of the non-regulatory Reactive Plume Model-IV (RPM-IV). Results of this model show no significant change in ozone concentrations due to the project.

Even though there will be a net decrease in SO_2 and PM_{10} emissions due to this proposed project, AAQS analyses were performed for these pollutants as required by Chapter 62-212.300, F.A.C., to ensure that this project together with other sources in the area would not interfere with compliance and maintenance of AAQS for these pollutants.

The analysis of existing air quality generally relies on presonstruction monitoring data collected with EPA-approved methods. The PSD increment and AAQS analyses depend on air quality dispersion modeling carried out in accordance with EPA guidelines.

Based on the required analyses, the Department has reasonable assurance that the proposed project, as described in this report and subject to the conditions of approval proposed herein, will not cause or contribute to a violation of any AAQS or PSD increment. However, the following EPA-directed stack height language is included: "In approving this permit, the Department has determined that the application complies with the applicable provisions of the stack height regulations as revised by EPA on July 8, 1985 (50 FR 27892). Portions of the regulations have been remanded by a panel of the U.S. Court of Appeals for the D.C. Circuit in NRDC v. Thomas, 838 F. 2d 1224 (D.C. Cir. 1988). Consequently, this permit may be subject to modification if and when EPA revises the regulation in response to the court decision. This may result in revised emission limitations or may affect other actions taken by the source owners or operators." A discussion of the modeling procedure and required analyses follows.

B. Analysis of Existing Air Quality and Determination of Background Concentrations

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD review. However, an exemption to the monitoring requirement can be obtained if the maximum air quality impact resulting from the projected emissions increase, as determined by air quality modeling, is less than a pollutant-specific de minimus concentration.

Even if preconstruction ambient monitoring is exempted, determination of background concentrations may be necessary for use in any required AAQS analysis. These concentrations may be established from the required preconstruction ambient air quality monitoring analysis or from previously existing representative monitoring data. These background ambient air quality concentrations are added to pollutant impacts predicted by modeling and represent the air quality impacts of sources not included in the modeling.

Table 2 shows that NO_2 and CO impacts from the project are predicted to be less than the de minimus levels. Therefore, preconstruction ambient air quality monitoring is not required for these two pollutants.

However, since AAQS analyses are required for NO_2 , SO_2 and PM_{10} emissions, previously existing representative monitoring data from NO_2 , SO_2 and PM_{10} monitors located in the vicinity of the project were used to establish background concentrations. The background concentration values used in the AAQS analyses are given in Table 6.

C. Modeling Procedure

The EPA-approved Industrial Source Complex Short-Term (ISCST2) dispersion model was used to evaluate the pollutant emissions from the proposed project, the Manatee plant and other existing major facilities. The model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area and volume sources. The model incorporates elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms such as deposition. The ISCST2 model allows for the separation of sources, building wake downwash, and various other input and output features. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options in each modeling scenario. Direction-specific downwash parameters were used for all sources for which downwash was considered.

Initially, the applicant conducted preliminary modeling for the purpose of determining the worst case operating load for the proposed project while firing orimulsion. Modeling was performed for three operating loads: 100, 75, and 50 percent. The receptor grid used in this modeling consisted of receptors located at plant property and at distances of 0.2, 0.4, 0.6, 0.8, 1.0, 1.5, 2.0, 3.0, 4.0, 5.0, 7.5, 10.0, 15.0 and 20.0 km along 36 radials with each radial spaced at 10-degree increments. This grid was centered on the midpoint between locations of the existing steam unit stacks. The results of this preliminary modeling show that maximum potential pollutant impacts associated with the use of orimulsion are produced at 100 percent operating load.

These worst case conditions were used as input in the significant impact analyses and all subsequent AAQS and increment analyses required for this project. Both screening and refined receptor grids were used in these modeling analyses. For determination of the proposed project's significant impact area for the PSD-significant pollutants, NO_2 and CO, the screening receptor grid consisted of 396 receptors located at distances from the stacks of 1.0, 2.0, 3.0, 5.0, 7.5, 10.0, 12.5, 15.0, 20.0 and 25.0 km along 36 radials with each radial spaced at 10-degree intervals. For the AAQS and PSD Class II analyses, screening receptor grids were based on the size of the significant impact area for each pollutant, if any. As shown in Table 3, NO_2 maximum predicted impacts were greater than the significant impact level while CO impacts were not. The radius of significant impact for NO_2 is 10 km. Therefore, the screening receptors for the NO_2 AAQS and PSD Class II analyses were located at the plant property and at distances from the stacks of 0.4, 0.7, 1.0, 1.5, 2.0, 3.0, 5.0, 7.5 and 10.0 km along 36 radials with each radial spaced at 10-degree intervals. After the screening modeling was completed, refined modeling was conducted using a finer spaced receptor grid centered on the receptors with the highest annual and highest short-term concentrations in the screening analysis.

Additionally, for the SO_2 and PM_{10} AAQS analyses, concentrations were predicted with the same screening receptor grid used for the NO_2 AAQS and PSD Class II analyses. However, this receptor grid also included additional receptors located at 12.5 and 15.0 km along each radial. Refined modeling was also done.

The Chassahowitzka National Wilderness Area (CWNA) is a PSD Class I area that is located 120 km from the project site at its closest point. In the PSD Class I analysis, CWNA is represented by 13 Department-approved standard discrete receptors.

Meteorological data used in the ISCST2 model to determine air quality impacts consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings National Weather Service (NWS) stations at the The 5-year period International Airport and Ruskin. meteorological data was from 1982 through 1986. The NWS stations at Tampa and Ruskin, located approximately 45 km and 20 km, respectively, from the northwest corner of the project area, are the closest primary weather stations to plant site and are most representative of the plant site. The surface observations included wind direction, wind speed, temperature, cloud cover and cloud ceiling.

Since five years of data were used, the highest-second-high (HSH) short-term predicted concentrations were compared with the appropriate ambient air quality standards or PSD increments. For the annual averages, the highest predicted yearly average was compared with the standards. For determining the significant impact area, both the highest short-term predicted concentrations and the highest predicted yearly averages were compared to the significant impact levels.

D. Significant Impact Analysis

As stated in the section above, the maximum air quality impacts due to NO_2 emissions from the proposed project are greater than the significant impact level (Table 3) while impacts from CO emissions are not. The radius of significant impact for NO_2 is 10 km.

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E. PSD Increment Analysis

1. Class II Area

The PSD increment represents the amount that new sources in an area may increase ambient ground level concentrations of a pollutant. Atmospheric dispersion modeling, as previously described, was performed to quantify the amount of PSD increment consumed. The results for NO₂ emissions, given in Table 4, show that the maximum NO₂ increment consumption will not exceed the allowable Class II PSD increment. Since SO₂ and PM₁₀ emissions from the project are less than PSD-significant, and also since there will be a net decrease in these emissions while firing orimulsion, no increment analyses are required for these pollutants.

2. Class I Area

A proposed source subject to PSD review must conduct a dispersion modeling analysis of its impacts on any PSD Class I area located near the source. The closest receptor point in the Class I CWNA is approximately 120 km from the Manatee project site. Maximum predicted NO $_2$ impacts from all sources in the vicinity of this Class I area are given in Table 5 and show that maximum NO $_2$ increment consumption will not exceed the allowable Class I PSD increment. No SO $_2$ and PM $_{10}$ Class I increment analyses are required for this project for since there will be a net decrease in emissions of these pollutants.

F. AAQS Analysis

For the pollutants subject to an AAQS review, the total impact on ambient air is obtained by adding a "background" concentration to the maximum modeled concentration. This "background" concentration takes into account all sources of a particular pollutant that are not explicitly modeled. The results of the AAQS analyses for NO_2 , SO_2 and PM_{10} when firing orimulsion are summarized in Table 6. Emissions from the proposed facility are not expected to cause or contribute to a violation of an AAQS.

In addition, supplemental air quality analyses were performed for the Manatee plant firing alternative fuels of HSFO and LSFO. The maximum total NO $_2$ impact predicted when firing HSFO and LSFO is slightly higher (18 ug/m³, annual average) than the NO $_2$ value shown in Table 6 for the orimulsion firing case. The maximum total SO $_2$ impacts predicted when the Manatee plant is firing HSFO or LSFO are also the same or similar to those predicted when the plant is firing

orimulsion (the 3-hour $\rm SO_2$ impact of 778 ug/m3 is slightly higher). These results generally indicate that background sources are major contributors to maximum total $\rm SO_2$ impacts. Maximum total $\rm PM_{10}$ impacts when the Manatee plant is firing alternative fuels are the same as for the orimulsion case. These maximum total $\rm PM_{10}$ impacts are primarily due to materials handling operations at the plant.

G. Air Toxics Analysis

The maximum impacts of regulated and non-regulated toxic air pollutants that will be emitted by the project are presented in Table 7. Each pollutant's maximum 8-hour, 24-hour, and annual impact is compared to the Department's draft Acceptable Ambient Concentrations (AAC).

V. ADDITIONAL IMPACTS ANALYSIS

A. Impacts on Soils, Vegetation, and Wildlife

The maximum ground-level concentrations predicted to occur for SO_2 , PM_{10} , CO, and NO_X as a result of the proposed project, including background concentrations and all other nearby sources, will be below the associated AAQS. The AAQS are designed to protect both the public health and welfare. As such, this project is not expected to have a harmful impact on soils and vegetation in the PSD Class II area. An air quality related values (AQRV) analysis was done by the applicant for the Class I area. No significant impacts on this area are expected.

B. Impact on Visibility

Visual Impact Screening and Analysis (VISCREEN), the EPA-approved Level I visibility computer model, was used to estimate the impact of the proposed project's stack emissions on visibility in the CWNA. The results indicate that the maximum visibility impacts do not exceed the screening criteria inside or outside the Everglades National Park Class I area. As a result, there is no significant impact on visibility predicted for the Class I area.

C. Growth-Related Air Quality Impacts

There will be approximately 350 construction workers during construction and approximately 18 new permanent workers after the project is completed. However, there will be no significant impacts on air quality caused by associated population growth.

D. GEP Stack Height Determination

Good Engineering Practice (GEP) stack height means the greater of: (1) 65 m (213 ft) or (2) the maximum nearby building height plus 1.5 times the building height or width, whichever is less. The stacks for this project will be 505 ft, an increase of 6 ft from the existing stacks. These stacks are higher than the GEP stack height.

Based on the GEP stack height regulations, creditable stack height for both units is 475 ft. This height was used in all of the air quality impacts modeling.

VI. CONCLUSION

Based on the information presented by the applicant in the above analysis, the Department has been provided reasonable assurances that the proposed project to modify two 800 MW fossil fuel-fired steam generators and construct materials handling equipment and storage facilities, as described in the application and subject to the conditions of approval proposed herein, will not cause or contribute to any violation of any PSD increment, ambient air quality standard, or any other technical provision of Chapters 62-212 and 62-4 of the Florida Administrative Code.

This preliminary determination has been made in accordance with the Prevention of Significant Deterioration (PSD) rules and is subject to change based upon comments received by the USEPA, other governmental agencies and commissions, citizens, environmental groups, and the applicant's representatives, and from comments received during the public hearing scheduled to start on November 29, 1995.

Manatee Orimulsion Conversion Project (PSD-FL-219 and PA 94-35)

Table 1: Significant and Net Emission Rates (Tons per Year)
(Firing Orimulsion)

Pollutant	Actual Emissions	Orimulsion Maximum Emissions	Proposed Net Emissions Increase	Significant Emission Rate	Applicable Pollutant (Yes/No)
PM	1,707	1,707	0	25	No
PM ₁₀	1,707	1,707	0	15	No
SO ₂	24,492	13,643	-10,849	40	No
NO _x	6,827	15,742	8,915	40	Yes
СО	15,463	18,948	3,485	100	Yes
VOC	122	122	0	40	No
Lead	0.68	0.17	-0.51	0.6	No
Mercury	0.078	800.0	-0.07	0.1	No
Beryllium	0.1024	0.0005	-0.1019	0.0004	No
Fluorides	0.15	0.04	-0.11	3	No
Sulfuric Acid Mist	1,122	374	-748	7	No

Table 2. Maximum Air Quality Impacts for Comparison to the De Minimus Ambient Levels.

Pollutant	Avg. Time	Predicted Impact (ug/m³)	De Minimus Level (ug/m³)	
NO ₂	Annual	3.1	14	
СО	8-hour	110	575	

Manatee Orimulsion Conversion Project (PSD-FL-219 and PA 94-35)

Table 3. Maximum Air Quality Impacts for Comparison to the Significant Impact Levels.

Pollutant	Avg. Time	Predicted Impact (ug/m³)	Significant Impact Level (ug/m³)
NO ₂	Annual	3.1	1
СО	1-hour	518	2000
	8-hour	118	500

Table 4. PSD Class II Increment Analysis

Pollutant	Averaging Time	Max. Predicted Impact (ug/m³)	Allowable Increment (ug/m³)
NO ₂	Annual	4.2	25

Table 5. PSD Class I Increment Analysis

Pollutant	Averaging Time	Max. Predicted Impact (ug/m³)	Allowable Increment (ug/m³)
NO ₂	Annual	0.85	2.5

Manatee Orimulsion Conversion Project (PSD-FL-219 and PA 94-35)

Table 6. Ambient Air Quality Impact

Pollutant	Averaging Time	Major Sources Impact (ug/m³)	Background Conc. (ug/m³)	Total Impact (ug/m³)	Florida AAQS (ug/m³)
NO ₂	Annual _	7	9	16	100
	Annual	23.3	13	36.3	60
· SO ₂	24-hour	180	13	193	260
	3-hour	753	13	766	1,300
PM ₁₀	Annual	14.7	21	35.7	50
	24-hour	83.4	47	130.4	150

Table 7: Air Toxics Analysis

	8-	hour	24-	hour	Annual	
Pollutant	Impact (ug/m³)	ARC (ug/m³)	Impact (ug/m³)	ARC (ug/m³)	Impact (ug/m³)	ARC (ug/m³)
Antimony	6.15e-04	5	2.40e-04	1.2	1.26e-05	0.3
Arsenic	4.43e-04	2	1.73e-04	0.48	1.18e-05	0.00023
Barium	4.22e-04	5	1.65e-04	1.2	4.02e-06	5
Beryllium	2.54e-06	0.02	9.91e-07	0.0048	5.92e-08	0.00042
Cadmium	2.15e-04	0.05	8.38e-05	0.01	5.48e-06	0.00056
Chromium+6	7.53e-04	0.5	2.93e-04	0.12	3.24e-06	8.3e-05
Copper	4.94e-04	10	1.92e-04	2.4	•	
Fluoride	2.13e-04	25	8.31e-05	6	-	•
Manganese	7.32e-04	50	2.85e-04	12	1.94e-05	0.05
Mercury	4.18e-05	0.5	1.63e-05	0.12	1.01e-06	0.3
Nickel	0.133	10	0.052	2.4	0.00352	0.0042
Selenium	0.00527	2	0.00205	0.48	-	•
Vanadium	0.0584	0.5	0.0227	0.12	0.00166	20
Zinc	0.00136	50	5.28e-04	12	-	-

Note: ARC = Ambient Reference Concentration



Department of **Environmental Protection**

Lawton Chiles Governor

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

Virginia B. Wetherell Secretary

PERMITTEE:

Florida Power & Light Company 700 Universe Boulevard Juno Beach, Florida 33408

Permit Number:

PA 94-35

PSD-FL-219

Expiration Date: December 31, 1998

County: Manatee

Location: Hwy 62, 5 miles NE of Parrish, FL

UTM: 17-367.3 km E 3054.1 km N Project: Manatee Power Plant Modification

Orimulsion Conversion Project

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-200 through 297 & Chapter 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown an the application and approved drawing(s), plans, and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

For modification of existing emission units

- 01 Unit #1 Fossil fuel-fired steam generating unit
- 02 Unit #2 Fossil fuel-fired steam generating unit

including adding additional sootblowers and increasing heat surface area of the boilers to accommodate the firing of Orimulsion fuel, and High (maximum 3.0% by weight) Sulfur Fuel Oil (HSFO) when Orimulsion is unavailable, in addition to the Low (1.0% or less) Sulfur Fuel Oil (LSFO) currently fired in the units. Air pollution control equipment, including a Pure Air flue gas desulfurization (FGD) system with a minimum sulfur dioxide removal efficiency of 95%, Pure Air electrostatic precipitators (ESP) with a minimum particulate removal efficiency of 90%, and low-NOx burners, will be installed to reduce emissions of sulfur dioxide, particulate matter, and nitrogen oxides; and

For construction of new emission units for handling and storage of limerock/limestone, flyash, and gypsum as listed below:

- 03 Limerock/Limestone Truck Unloading fugitive emissions
- 04 Limerock Rail Unloading fugitive emissions
- 05 Limestone Storage Pile fugitive emissions
- 06 Limerock Storage Pile fugitive emissions
- 07 Limerock/Limestone Receiving Hoppers fugitive emissions
- 08 Limestone Blending Silo with dust collector/bag filter vent

PERMITTEE:

Permit Number: PA 94-35

Florida Power & Light Company

- 09 Covered Limerock/Limestone Conveyors fugitive emissions
- 10 Limerock/Limestone Day Silo #1 with bag filter vent
- 11 Limerock/Limestone Day Silo #2 with bag filter vent
- 12 Limerock/Limestone Day Silo #3 with bag filter vent
- 13 Limerock Day Silo #1 Covered Recycle Conveyor fugitive emissions
- 14 Limerock Day Silo #2 Covered Recycle Conveyor fugitive emissions
- 15 Limerock Day Silo #3 Covered Recycle Conveyor fugitive emissions
- 16 Limerock/Limestone Precrusher #1 with bag filter vent
- 17 Limerock/Limestone Precrusher #2 with bag filter vent
- 18 Limestone Ball Mill #1 Tower Feed with bag filter vent
- 19 Limestone Ball Mill #2 Tower Feed with bag filter vent
- 20 Unit #1 Fly Ash Silo w/cyclone separator with bag filter vent
- 21 Unit #2 Fly Ash Silo w/cyclone separator with bag filter vent
- 22 Fly Ash Silo #1 Unloading/Truck Loading fugitive emissions
- 23 Fly Ash Silo #2 Unloading/Truck Loading fugitive emissions
- 24 Fly Ash Stabilization (Lime; Cement; Limestone)
- 25 Stabilized Fly Ash Loading/Transport to Byproduct Storage in Fly Ash Barn fugitive emissions
- 26 Unloading Stabilized Fly Ash to Backup Byproduct Disposal Area fugitive emissions
- 27 Fly Ash Product Silo #1 with bag filter vent
- 28 Fly Ash Product Silo #2 with bag filter vent
- 29 Fly Ash Product Silo #3 with bag filter vent
- 30 Fly Ash Agglomeration with bag filter vent
- 31 Fly Ash Curing with bag filter vent
- 32 Fly Ash Product Storage Barn fugitive emissions
- 33 Fly Ash Product Truck Loading fugitive emissions
- 34 Fly Ash Product Rail Loading fugitive emissions
- 35 Fly Ash Processing Building Chipped Gypsum Storage with bag filter vent
- 36 Fly Ash Processing Building Chip Mill #1 (no burner) with bag filter
- 37 Fly Ash Processing Building Chip Mill #2 (no burner) with bag filter
- 38 Fly Ash Processing Building Chip Mill Curing Tunnels
- 39 Fly Ash Processing Building Chip Storage fugitive emissions
- 40 Fly Ash Processing Building Chip Truck Loading
- 41 Fly Ash Processing Building Chip Rail Loading
- 42 Gypsum Processing Building Chip Mill #3 (no burner) with bag filter
- 43 Gypsum Processing Building Chip Mill #4 (no burner) with bag filter
- 44 Gypsum Processing Building Chip Mill #5 (no burner) with bag filter
- 45 Gypsum Processing Building Chip Mill #6 (no burner) with bag filter
- 46 Gypsum Processing Building Chip Mill #7 (no burner) with bag filter
- 47 Gypsum Processing Building Chip Mill Curing Tunnel
- 48 Gypsum Processing Building Chip Storage fugitive emissions
- 49 Gypsum Processing Building Chip Truck Loading fugitive emissions
- 50 Gypsum Processing Building Chip Rail Loading fugitive emissions
- 51 Powdered Gypsum Storage fugitive emissions
- 52 Powdered Gypsum Conveyor fugitive emissions
- 53 Powdered Gypsum Storage Barn Truck Loading fugitive emissions
- 54 Powdered Gypsum Storage Barn Rail Loading fugitive emissions
- 55 Powdered Gypsum Truck Transport/Unloading fugitive emissions
- 56 Powdered Gypsum Backup Byproduct Storage fugitive emissions
- 57 Wastewater Lime Silo #1 with bag filter vent
- 58 Wastewater Lime Silo #2 with bag filter vent
- 59 Wastewater Lime Conveyor System fugitive emissions
- 60 Emergency Quench Pumps combustion emissions

PERMITTEE:
Florida Power & Light Company

Permit Number: PA 94-35 PSD-FL-219

Specific Conditions:

Fossil fuel-fired steam generating units #1 and #2:

1. The following fuels are permitted to be fired in each unit: residual low sulfur fuel oil (LSFO) with a sulfur content no greater than 1.0% by weight; Orimulsion fuel with a sulfur content no greater than 2.9% by weight, a nonylphenol ethloxylate content no greater than 0.17% by weight, and a total additive content no greater than 1.0% by weight; and, only when Orimulsion is not available, residual high sulfur fuel oil (HSFO) with a sulfur content no greater than 3.0% by weight. Used oil shall not be fired. FPL shall not dispose of spent boiler cleaning chemicals by injecting them into either unit.

- 2. The maximum hourly heat input for each unit shall be 8650 MMBtu/hr while firing LSFO or HSFO; and 8100 MMBtu/hr while firing high Orimulsion. The maximum annual heat input for the facility while firing Orimulsion shall be 116,604,360 MMBtu/year.
- 3. While firing Orimulsion fuel, the sulfur dioxide (SO2) emissions from each unit shall not exceed 0.234 lb/MMBtu heat input, based upon a 30-day rolling average, and the annual facility emissions shall not exceed 13,643 tons per year, based upon actual annual MMBtu heat input. While firing LSFO or HSFO the sulfur dioxide emissions from each unit shall not exceed 1.1 lb/MMBtu heat input, based upon a 30-day rolling average. Continuous emission monitors meeting the requirements of 40 CFR Part 75 shall be used to demonstrate compliance.
- 4. While firing Orimulsion fuel, the particulate matter (PM/PM10) emissions from each unit shall not exceed 0.03 lb/MMBtu heat input. While firing LSFO or HSFO at steady-state, the particulate matter emissions from each unit shall not exceed 0.1 lb/MMBtu. While firing LSFO or HSFO during sootblowing and load changing, the particulate matter emissions from each unit shall not exceed 0.3 lb/MMBtu (for a maximum of 3 hours in a 24-hour period). Because there was no PSD review performed for particulate matter, the total annual facility particulate matter emissions, including emissions from materials handling and storage operations, shall not exceed 1707 tons per year (the current actual annual particulate matter emissions). Compliance for Units 1 and 2 shall be demonstrated based upon quarterly compliance testing using EPA Method 5 or 17.
- 5. While firing Orimulsion, emissions of nitrogen oxides (NOx) from each unit shall not exceed 0.270 lb/MMBtu heat input, based upon a 30-day rolling average, and annual facility NOx emissions shall not exceed 15,742 tons per year based upon actual annual MMBtu heat input. While firing LSFO or HSFO, the emissions of nitrogen oxides from each unit shall not exceed 0.30 lb/MMBtu heat input, based upon a 30-day rolling average. Continuous emission monitors meeting the certification and quality assurance requirements of 40 CFR Part 75 shall be used to demonstrate compliance. Rolling averages shall be calculated and recorded each day based on the previous 30 boiler operation days. Recordkeeping, calculation of emissions, and reporting of emissions shall be performed in the same manner as required in 40 CFR 60 Subpart Da.

PERMITTEE: Florida Power & Light Company

Permit Number: PA 94-35 PSD-FL-219

Specific Conditions:

6.a. The permittee shall install low-NOx burners in both units. The permittee shall make every practicable effort to achieve the lowest possible NOx emissions rate, but in any event, the NOx emissions rate for each unit shall not exceed 0.270 lb/MMBtu heat input when firing Orimulsion.

- 6.b. After completion of initial compliance testing of Unit 1 firing Orimulsion, FPL shall conduct a six month test program to determine the lowest NOx emission rate that can be practicably achieved when burning Orimulsion with low NOx burners, overfire air and burners out-of-service, taking into account long-term performance expectations and assuming good operation and maintenance practices. Within nine months after completion of initial compliance testing of Unit 1, FPL shall prepare and submit for Department review an engineering report containing data and analysis regarding the lowest NOx emission rate which can be practicably and consistently achieved, with a reasonable operating margin, using low-NOx burners, overfire air and burners out-of-service, and taking into account long-term performance expectations and assuming good operation and maintenance practices.
- 6.c. After submittal of the engineering report by FPL, the Department will make a determination, based upon the engineering report, regarding establishment of any revised NOx limit for Unit 1. If the results of the testing program demonstrate that a NOx emission rate of less than 0.270 lb/MMBtu heat input is practicably and consistently achievable using low-NOx burners, overfire air and burners out-of-service, the NOx emissions limit applicable to Unit 1 may be adjusted accordingly.
- 7.a. FPL shall install reburn technology on Unit 2 prior to conducting initial compliance testing. After completion of initial compliance testing for Unit 2, FPL shall conduct a sixmonth test program to determine the lowest NOx emission rate that can practicably be achieved when burning Orimulsion with low-NOx burners and reburn technology, taking into account long-term performance expectations and assuming good operation and maintenance practices. During the six-month test period FPL shall include feed rates of reburning fuel in the range of 10 to 20 percent of the total heat input to the boiler. If the optimum feed rate of fuel reburning is outside of this range, FPL shall submit a professional engineer's analysis and a statement certifying that the reburn technology for Unit 2 is designed to maximize the reduction in NOx emissions practicably achievable with this technology at this facility. Within nine months after completion of initial compliance testing of Unit 2, FPL shall prepare and submit for Department review an engineering report containing data analysis regarding the lowest NOx emissions rate which can be practicably and consistently achieved, with a reasonable operating margin, using low-NOx burners and reburn technology and taking into account long-term performance expectations and assuming good operation and maintenance practices.

PERMITTEE:
Florida Power & Light Company

Permit Number: PA 94-35 PSD-FL-219

Specific Conditions:

7.b. After submittal of the engineering report by FPL, the Department will make a determination, based upon the engineering report, regarding establishment of any revised NOx limit for Unit 2. If the results of the test program demonstrate that a NOx emission rate of less than 0.270 lb/MMBtu heat input is practicably and consistently achievable using low-NOx burners and reburn technology, the NOx emission limit applicable to Unit 2 may be adjusted accordingly.

- 7.c. If the result of the test program required under specific condition 7.b. demonstrate a decrease in the NOx emission rate of at least 20 percent is practicably achievable using reburn technology (as compared to the NOx emission rate achievable with low-NOx burners, overfire air, and burners out-of-service without reburn technology), FPL shall install reburn technology on Unit 1 during the next outage scheduled (but no later than one year) following revision of the NOx emission limit for Unit 2. A revised NOx emission limit for Unit 1, equal to that established under specific condition 7.b. for Unit 2, shall apply to Unit 1 upon completion of a shakedown period of 180 days following installation of reburn technology. If the results of the test program required under specific condition 7.b. do not demonstrate that a decrease in the NOx emission rate of at least 20 percent is practicably achievable using reburn technology (as compared to the NOx emission rate achievable with low-NOx burners, overfire air, and burners out-of-service without reburn technology), any revised NOx emission limit established for Unit 1 under specific condition 6.c. shall also apply to Unit 2.
- 7.d. If the test program demonstrates a decrease in NOx emissions of less than 20 percent, then a calculation of the incremental cost effectiveness (CE) for installing reburn technology on Unit 1 shall be done using a total capital cost which is the documented actual costs for adding fuel reburning to Unit 2 (but not to exceed \$8,000,000) to install reburn technology on Unit 1, and a NOx reduction based on a comparison of the NOx emissions with and without reburn technology (to three significant figures in units of lb/MMBtu). If the incremental CE is less than \$4,000 per ton of NOx removed, then reburn technology shall be installed on Unit 1 as outline in specific condition 7.c.
- 7.e. At FPL's option, reburn technology may be installed on Unit 1 prior to initial compliance testing. If FPL elects this option, the requirements and provisions of specific conditions 7.a. and 7.b. shall govern with respect to Unit 1 in lieu of the requirements and provisions of specific conditions 6.b. and 6.c.
- 8. While firing Orimulsion fuel, emissions of carbon monoxide (CO) from each unit shall not exceed 0.325 lb/MMBtu while firing Orimulsion, based upon a 30-day rolling average using a continuous emission monitor (CEM) and the annual facility emissions shall not exceed 18,948 tons per year based upon actual annual MMBtu heat input. While firing LSFO and HSFO the CEM shall also be operated. The CEM shall meet the certification and quality assurance requirements of 40 CFR 75. Recordkeeping, calculation of emissions, and reporting of emissions shall be performed in the same manner as used for

Permit Number: PA 94-35 PSD-FL-219

Specific Conditions:

NOx emissions. Compliance shall be demonstrated annually for each unit by conducting one 3-run test using EPA Method 10 while firing Orimulsion.

- 9. While firing Orimulsion fuel, total annual emissions of volatile organic compounds (VOC) from the facility shall not exceed the current actual emissions of 122 tons per year. Compliance shall be demonstrated annually for each unit by conducting one 3-run test using EPA Method 25 while firing Orimulsion.
- 10. While firing Orimulsion fuel, emissions of sulfuric acid mist from each unit shall not exceed 49.1 lb/hr and annual facility emissions shall not exceed 374 tons/year. Compliance shall be demonstrated annually for each unit by conducting one 3-run test using EPA Method 8 while firing Orimulsion.
- 11. While firing Orimulsion fuel, emissions of fluoride from each unit shall not exceed 0.005 lb/hour and the annual facility emissions shall not exceed 0.04 ton/year. Each unit shall be monitored annually by conducting one 3-run test using EPA Method 13A or 13B while firing Orimulsion.
- 12. While firing Orimulsion fuel, the following metals emitted from each unit shall not exceed the limits listed as follows:

26.1	11 41 - 11 - 14 C	
Metal	lb/hr limit for each unit	ton/yr facility limit
Antimony	0.0147	0.112
Arsenic	0.0106	0.0808
Barium	0.0101	0.0770
Beryllium	0.000061	0.0005
Cadmium	0.00515	0.0393
Chromium	0.0180	0.137
Copper	0.0118	0.0899
Lead	0.023	0.17
Manganese	0.0175	0.133
Mercury	0.001	0.008
Nickel	3.19	24.3
Phosphorous	0.0275	0.210
Selenium	0.126	0.960
Silver	0.00412	0.0314
Zinc	0.0324	0.247
Vanadium (as vanadium pentoxide)	1.39	10.59

Compliance for all listed metals, except vanadium pentoxide, shall be demonstrated by proposed EPA Test Method 29 within 12 months of DEP approval of Test Method 29 and every two years thereafter while firing Orimulsion fuel. Compliance with the vanadium pentoxide limits shall be demonstrated by using a Department-approved method.

PERMITTEE:
Florida Power & Light Company

Permit Number: PA 94-35 PSD-FL-219

Specific Conditions:

13. For each unit, opacity shall be limited to 20% except for one six-minute period per hour of not more than 27% opacity. Continuous emission monitors (CEMs) meeting the requirements of 40 CFR Parts 60 and 75 shall be used to demonstrate compliance.

14. The flue gas desulfurization, electrostatic precipitation, and NOx pollution reduction equipment for each unit must be in operation while each unit is firing Orimulsion, high sulfur fuel oil, or low sulfur fuel oil.

15. Excess Emissions -

(a) Events - Rule 62-210.700, F.A.C.

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

Excess emissions resulting from malfunction are permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions is minimized but in no case exceeds two hours in any 24-hour period unless specifically authorized by the Department for longer duration.

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 are prohibited.

(b) Notification - Rules 62-210.700(6) and 62-4.130, F.A.C.

In the event the permittee is temporarily unable to comply with any of the conditions of this permit, the permittee shall immediately notify the Department's Southwest District Office and provide the following information: a description of and cause of non-compliance; and the period of non-compliance, including dates and times, or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance. In case of excess emissions resulting from malfunctions, a full written report on the malfunctions shall be submitted in a quarterly report to the Department.

(c) Quarterly Report Submittal -

In addition to the requirements of condition 15(b) above, a written quarterly report shall be submitted to the Department's Southwest District Office identifying all exceedances of the opacity limiting standard. The report shall state

PERMITTEE:
Florida Power & Light Company

Permit Number: PA 94-35

PSD-FL-219

Specific Conditions:

the cause, period of non-compliance, magnitude of excess emissions, steps taken for corrective action, and steps taken to prevent recurrence. The Department shall also be notified when there are no exceedances for a calendar quarter. This report does not relieve FPL of the legal liability for violations. All relevant records shall be maintained on file for a period of at least 5 years and made available to the Department upon request. The report shall be submitted within 30 days following the end of each calendar quarter.

Materials Handling and Storage:

- 16. The maximum lime/limestone received at the facility shall be limited to 550,000 tons per year.
- 17. Unless the emission unit is enclosed in a building, as specified in condition No.19, the emissions from the dust collector/bag filter vent of each of the following emission units shall not exceed 0.020 grains/dscf, as determined annually by EPA Method 5 or 17, and shall not exceed 7% opacity, as determined annually by EPA Method 9:
 - 08 Limestone Blending Silo
 - 10 Limerock/Limestone Day Silo #1
 - 11 Limerock/Limestone Day Silo #2
 - 12 Limerock/Limestone Day Silo #3
 - 16 Limerock/Limestone Precrusher #1
 - 17 Limerock/Limestone Precrusher #2
 - 18 Limestone Ball Mill #1 Tower Feed
 - 19 Limestone Ball Mill #2 Tower Feed
 - 35 Fly Ash Processing Building Chipped Gypsum Storage
 - 36 Fly Ash Processing Building Chip Mill #1 (no burner)
 - 37 Fly Ash Processing Building Chip Mill #2 (no burner)
 - 42 Gypsum Processing Building Chip Mill #3 (no burner)
 - 43 Gypsum Processing Building Chip Mill #4 (no burner)
 - 44 Gypsum Processing Building Chip Mill #5 (no burner)
 - 45 Gypsum Processing Building Chip Mill #6 (no burner)
 - 46 Gypsum Processing Building Chip Mill #7 (no burner)
 - 57 Wastewater Lime Silo #1
 - 58 Wastewater Lime Silo #2.
- 18. Unless the emission unit is enclosed in a building, as specified in condition No.19, the fugitive emissions from each of the following emission units shall not exceed 10% opacity, as determined annually by EPA Method 9:
 - 09 Covered Limerock/Limestone Conveyors
 - 13 Limerock Day Silo #1
 - 14 Limerock Day Silo #2
 - 15 Limerock Day Silo #3

PERMITTEE:

Florida Power & Light Company

Permit Number: PA 94-35

PSD-FL-219

Specific Conditions:

- 38 Fly Ash Processing Building Chip Mill Curing Tunnels
- 39 Fly Ash Processing Building Chip Storage
- 40 Fly Ash Processing Building Chip Truck Loading
- 41 Fly Ash Processing Building Chip Rail Loading
- 47 Gypsum Processing Building Chip Mill Curing Tunnel
- 48 Gypsum Processing Building Chip Storage
- 49 Gypsum Processing Building Chip Truck Loading
- 50 Gypsum Processing Building Chip Rail Loading
- 51 Powdered Gypsum Storage
- 52 Powdered Gypsum Conveyor
- 53 Powdered Gypsum Storage Barn Truck Loading
- 54 Powdered Gypsum Storage Barn Rail Loading
- 59 Wastewater Lime Conveyor System.
- 19. If any emission unit listed in condition No. 17 or condition No. 18 is enclosed in a building it must comply with the emission limits in condition No. 17 or condition No. 18 respectively, or the building enclosing the emission unit must comply with the following:
 - (a) There shall be no visible emissions from the building except emissions from a vent where there is a mechanically-induced air flow for the purpose of exhausting from the building air carrying particulate matter emissions from one or more emission unit. EPA Method 22 shall be used annually to determine whether or not there are no visible emissions. The compliance test shall be performed while all emission units in the building are in operation, and shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.
 - (b) The emissions from the vent shall not exceed 0.020 grains/dscf nor 7% opacity. EPA Method 5 or Method 17 shall be used to determine annual compliance with the particulate matter standard, and EPA Method 9 shall be used to determine annual compliance with the opacity standard. [40 CFR 60.672-675]
- 20. The fugitive emissions from each of the following emission units shall not exceed 20% opacity as determined annually by EPA Method 9:
 - 03 Limerock/Limestone Truck Unloading
 - 04 Limerock Rail Unloading
 - 05 Limestone Storage Pile
 - 06 Limerock Storage Pile
 - 07 Limerock/Limestone Receiving Hopper
 - 22 Fly Ash Silo #1 Unloading/Truck Loading
 - 23 Fly Ash Silo #2 Unloading/Truck Loading
 - 24 Fly Ash Stabilization (Lime; Cement; Limestone)
 - 25 Stabilized Fly Ash Loading/Transport Byproduct Storage in Fly Ash Barn
 - 26 Unloading Stabilized Fly Ash to Backup Byproduct Disposal Area
 - 32 Fly Ash Product Storage Barn
 - 33 Fly Ash Product Truck Loading

Permit Number: PA 94-35 PSD-FL-219

Specific Conditions:

34 Fly Ash Product Rail Loading

- 55 Powdered Gypsum Truck Transport/Unloading
- 56 Powdered Gypsum Backup Byproduct Storage
- 60 Emergency Quench Pumps combustion emissions.

Additional Requirements:

- 21. The initial compliance test for each unit must be performed within 180 days of startup of the emission unit. The reports of the required compliance tests shall be filed with the Air Compliance Section of the Department's Southwest District Office as soon as practical but no later than 45 days after the last sampling run of each test is completed. A compliance test report shall provide sufficient detail on the source tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly calculated. As a minimum, the test report shall provide the applicable information listed in Rule 62-297.570(3), F.A.C.
- 22. The continuous emissions monitoring (CEM) equipment shall be installed, operated, and maintained in accordance with the manufacturer's instructions. The permittee shall maintain a complete file of all measurements, including CEM system, monitoring device, and performance testing measurements; all CEM system performance evaluations; all CEM system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required, recorded in a permanent legible form suitable for inspection. The file shall be retained at the facility for at least two years following the date of such measurements, maintenance, reports and records.
- 23. Daily operations and maintenance logs shall be maintained for the most recent fiveyear period and made available to the Department upon request.
- 24. No later than 180 days after commencing operation, the permittee shall submit an application to obtain, or to modify any existing, Title V permit for this facility to include the emissions units permitted above.
- 25. A part of this permit is the attached 15 General Conditions. [Rule 62-4.160, F.A.C.]

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Virginia B. Wetherell, Secretary

PERMITTEE: Florida Power & Light

PERMIT NUMBER: PA 94-35 (PSD-FL-219)

GENERAL CONDITIONS:

- 1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- 2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- 3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- 4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- 5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department.
- 6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or

PERMITTEE: Florida Power & Light

PERMIT NUMBER: PA 94-35 (PSD-FL-219)

auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

- 7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
 - a. Have access to and copy any records that must be kept under the conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

- 8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of non-compliance; and,
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

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

PERMITTEE: PERMIT NUMBER: PA 94-35 Florida Power & Light (PSD-FL-219)

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

- 11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- 12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
- 13. This permit also constitutes:
 - (x) Determination of Best Available Control Technology (BACT)
 - (x) Determination of Prevention of Significant Deterioration (PSD)
- 14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - The date, exact place, and time of sampling or measurements;
 - The person responsible for performing the sampling or measurements;
 - The dates analyses were performed;
 - The person responsible for performing the analyses;
 - The analytical techniques or methods used; and,

PERMITTEE: Florida Power & Light

PERMIT NUMBER: PA 94-35 (PSD-FL-219)

- The results of such analyses.

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

Table 4-8c. Direct and Indirect Capital Cost for Selective Catalytic Reduction (SCR) Associated with FPL Manatee Orimulsion Conversion Project

Cost Component	Costs (\$)	Basis for Cost Estimate
Direct Capital Costs		
SCR Associated Equipment	8,283,400	Developed from manufacturer budget quotations. (Source: KBN)
Ammonia Storage Tank	492,400	Developed from manufacturer budget quotations. (Source: KBN)
SCR Installation	3,531,400	Developed from manufacturer budget quotations. (Source: KBN)
Air Heater/Booster Fans/Switchgear and Transformers	18,565,000	Developed from manufacturer budget quotations. (Source: FPL) See Note 1.
Combuster Duct Sections/Flue Gas Ducts/Stack Liner	6,300,000	Engineering Estimate. (Source: FPL) See Note 2.
ESP/FGD Arrangement Changes	8,000,000	Engineering Estimate. (Source: FPL)
		•
Indirect Capital Costs		
Engineering, Erection Supervision,	5,519,300	10% SCR equipment and catalyst, NH3 storage tank, installation and air heater/booster fans
Start-up & Testing, and O&M Training		switchgear and transformers (Source: OAQPS Cost Control Manual, 1992)
Administration & Site Work	2,759,600	5% SCR equipment and catalyst, NH3 storage tank, installation and air heater/booster fans
		switchgear and transformers and engineering costs (Source: OAQPS Cost Control Manual, 1992)
Ammonia Emergency Prepardness Program	51,800	Engineering estimate.
Liability Insurance	276,000	5% SCR equipment and catalyst, NH3 storage tank, air heater (stc.) and engineering costs.
Interest During Construction	9,569,900	7.5%/year for 2 years of all direct and indirect capital costs including catalyst cost.
Contingency	9,051,400	15% of all capital costs excluding catalyst costs. (Source: Vatavuk, 1990)
Total Capital Costs	72,400,200	Sum of all capital costs.
Annualized Capital Costs	8,504,100	Capital recovery of 10% over 20 years, 11.74% per year. (Source: OAQPS Cost Control Manual, 1992)
Recurring Capital Costs		
SCR Catalyst (Materials & Labor)	10,020,400	Developed from manufacturer budget quotations. (Source: KBN)
Contingency	1,503,100	15% of recurring capital costs. (Source: Vatavuk, 1990)
Containing of the Containing o	1,000,100	10 % of foculting capital costs. Locales. Valavan, 1990)
Total Recurring Capital Costs	11,523,400	Sum of recurring capital costs.
Annualized Recurring Capital Costs	3,039,900	Capital recovery of 10% over 5 years, 26.38% per year. (Source: OAQPS Cost Control Manual, 1992)
Total Capital/Recurring Costs	83,923,600	
Total Annualized Costs	11,544,000	

Note 1: Cost includes rotary regenerative air heater (\$12,000,000), booster fans (\$5,565,000) and switchgear/transformers (\$1,000,000). Note 2: Cost includes combustor duct sections (\$3,750,000), flue gas ducts (\$2,300,000) and stack liner (\$250,000).

Note: All calculations rounded off to the nearest \$100.

Table 4-9c. Annualized Cost for Selective Catalytic Reduction (SCR) Associated with One Manatee Unit Firing Orimulsion.

Cost Component	Costs (\$)	Basis for Cost Estimate
Direct Annual Costs		
Operating Personnel	72,800	56 hours/week @ \$25/hour.
Ammonia	501,100	\$300/ton; NH3:NOx = 1:1 volume.
Accident/Emergency Response Plan	8,600	Consultant estimate, 80 hours/year @ \$80/hour plus expenses @ 35% labor.
Inventory Cost	392,300	Capital recovery (11.74%/year) for 1/3 of catalyst cost. (Source: OAQPS Cost Control Manual, 1992)
Catalyst Disposal Cost	106,400	Engineering estimate.
Contingency	162,200	15% of O & M costs excluding insurance costs.
Energy Costs		
Electrical	3,414,400	152,164 MWh; 5" fans pressure drop, ammonia vaporization; booster fans & air preheater; 2.245 cents/kWl
Capacity Costs	0	Replacement capacity cost for electrical energy (20 MW); \$300/kW annualized @10% for 20 years.
Reheat Flue Gas	8,496,400	Reheat Fuel Costs; 260.55 mmBtu/hr; \$4.2788/mmBtu fuel costs. (Source: FPL & KBN, 1995)
Catalyst Changeout	0	720 MW lost for 4 days every 3 years; 2.247 cents/kWh
Contingency	1,786,600	15% of energy costs.
Total Direct Annual and Energy Costs	14,940,800	Sum of all direct annual costs.
Indirect Annual Costs		
Overhead	361,800	60% of ammonia and 115% of O&M labor plus 15% of O&M labor (OAQPS Cost Control Manual, 1992).
Property Taxes and Insurance	251,800	0.03% of total capital costs. (Source: OAQPS Cost Control Manual, 1992)
Annualized Capital Costs	8,504,100	Capital recovery of 10% over 20 years, 11.74% per year. (Source: OAQPS Cost Control Manual, 1992)
Recurring Capital Costs	3,039,900	Capital recovery of 10% over 5 years, 26.38% per year. (Source: OAQPS Cost Control Manual, 1992)
Total Indirect Annual Costs	12,157,600	Sum of all indirect annual costs.
Total Annual Costs	27,098,400	Total annualized cost.
NOx REMOVED (0.27 to 0.17 lb/mmBtu)	2,915	See Note 1.
Cost Effectiveness (\$/ton NOx Removed)	2,0.0	
EPA Traditional Method	9,296	Total annual costs divided by NOx reduction.
Investment Basis Method	44,266	See Note 2.
Existing Source Method	17.931	See Note 2.
Secondary Emissions Method	17,361	See Note 2.
	67,216	See Note 2.

Note 1: NOx emission reduction for one Manatee Unit operated at 87% capacity factor and meeting 0.17 lb/mmBtu. Note 2: Discussion of this method of calculation is presented in Section 4.8.3.2 of Air Permit Application. Note: All calculations rounded off to the nearest \$100.

Best Available Control Technology (BACT) Determination Florida Power & Light Company Manatee County

Florida Power and Light (FPL) has applied for a permit to fire Orimulsion and high sulfur fuel oil (as a backup fuel) in Manatee Units 1 and 2. Orimulsion is a mixture of water and a heavy hydrocarbon known as bitumen. Small quantities of an emulsifying agent and a water-soluble magnesium complex are added during the Orimulsion preparation process. Each unit at the Manatee facility has a nameplate rating of 863 megawatts (MW). FPL currently fires low sulfur (1%) No. 6 fuel oil in both units. This project will result in increased use of the existing boilers as the capacity factor will increase from 30 percent to 87 percent. The plant is located in North Manatee County, 5 miles east of Parrish, Florida.

This BACT analysis represents the Department's analysis. Emission changes are shown on Table 1 (attached) as a result of the proposed project based on current actual emissions from low sulfur fuel oil at 30 percent capacity factor verses the plant firing Orimulsion at 87 percent capacity factor. More than significant increases in annual emissions are projected for NO_{X} and CO while firing Orimulsion. High sulfur fuel oil will only be fired in the event Orimulsion is unavailable.

Date Receipt of a BACT Application

September 30, 1994

BACT Determination Procedure

In accordance with F.A.C., Chapter 62-212, this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case-by-case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, Rule 62-212.410(1), F.A.C., states that in making the BACT determination the Department shall give consideration to:

- (a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering, and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other state.

Manatee County

Page 2

(d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine for the emission source in question the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

Florida Administrative Code, Rule 62-212, requires a BACT review for all regulated pollutants emitted in an amount equal to or greater than the significant emission rates listed in Table 1 (attached). The BACT requirements are intended to ensure that a proposed facility will incorporate air pollution control systems that reflect the latest techniques (including fuel cleaning or treatment or innovative fuel combustion) used in the particular industry. An evaluation of the air pollution control techniques and systems is required including a consideration for energy requirements, environmental and economic impact.

a. BACT Determination Requested by the Applicant

The applicant has suggested that BACT for firing Orimulsion is the following emission limitations and method of controls:

- I. BEST AVAILABLE CONTROL TECHNOLOGY (BACT) FOR NOx EMISSIONS
 - A. FPL shall install low NO_X burners in both Manatee Plant units. FPL shall make every practicable effort to achieve the lowest possible NO_X emissions rate, but in any event, the NO_X emissions rate for each unit shall not exceed 0.270 pounds per million Btu heat input when firing Orimulsion.
 - B. After completion of initial compliance testing of Unit 1 firing Orimulsion, FPL shall conduct a six-month test program to determine the lowest NOx emissions rate that can be practicably achieved when burning Orimulsion with low NO_{X} burners, steam atomization, overfire air, and burners out-of-service, taking into account long-term performance expectations and assuming good operation and maintenance practices. Within nine months after completion of initial compliance testing of Unit 1, FPL shall prepare and submit for Department review an engineering report containing data and analysis regarding the lowest NO_{X} emissions rate which can be practicably and consistently achieved, with a

Manatee County

Page 3

reasonable operating margin, using low NO_X burners, steam atomization, overfire air, and burners out-of-service, and taking into account long-term performance expectations and assuming good operation and maintenance practices.

C. After submittal of the engineering report by FPL, the Department will make a determination, based upon the engineering report, regarding establishment of any revised NO_{X} limit for Unit 1. If the results of the testing program demonstrate that a NO_{X} emissions rate of less than 0.270 pounds per million Btu heat input is practicably and consistently achievable using low NO_{X} burners, steam atomization, overfire air, and burners out-of-service, the NO_{X} emission limit applicable to Unit 1 may be adjusted accordingly.

II. ADDITIONAL NOX MINIMIZATION PROGRAM

- A. FPL shall install reburn technology on Unit 2 prior to conducting initial compliance testing. After completion of initial compliance testing for Unit 2, FPL shall conduct a six-month test program to determine the lowest NO_X emission rate that can practicably be achieved when burning Orimulsion with low NO_X burners and reburn technology, taking into account long-term performance expectations and assuming good operation and maintenance practices. Within nine months after completion of initial compliance testing of Unit 2, FPL shall prepare and submit for Department review an engineering report containing data and analysis regarding the lowest NO_X emissions rate which can be practicably and consistently achieved, with a reasonable operating margin, using low NO_X burners and reburn technology and taking into account long-term performance expectations and assuming good operation and maintenance practices.
- B. After submittal of the engineering report by FPL, the Department will make a determination, based upon the engineering report, regarding establishment of any revised NO_X limit for Unit 2. If the results of the test program demonstrate that a NO_X emission rate of less than 0.270 pounds per million Btu heat input is practicably and consistently achievable using low NO_X burners and reburn technology, the NO_X emission limit applicable to Unit 2 may be adjusted accordingly.
- C. If the results of the test program required under paragraph II.B. demonstrate a decrease in the NO_{X} emission rate of at least 20 percent is practicably achievable using reburn technology (as compared to the NO_{X} emission rate achievable with low NO_{X} burners, steam atomization, overfire

Manatee County

Page 4

air, and burners out-of-service without reburn technology), FPL shall install reburn technology on Unit 1 during the next outage scheduled following revision of the NO_{X} emission limit for Unit 2. A revised NO_{X} emission limit for Unit 1, equal to that established under paragraph II.B. for Unit 2, shall apply to Unit 1 upon completion of a shakedown period of 180 days following installation of reburn technology. If the results of the test program required under paragraph II.B. do not demonstrate that a decrease in the NO_{X} emission rate of at least 20 percent is practicably achievable using reburn technology (as compared to the NO_{X} emission rate achievable with low NO_{X} burners, steam atomization, overfire air, and burners out-of-service without reburn technology), any revised NO_{X} emission limit established for Unit 1 under paragraph I.C. shall also apply to Unit 2.

- D. If the test program demonstrates a decrease in NO_X emissions of less than 20 percent, then a calculation of the incremental cost effectiveness (CE) for installing reburn technology on Unit 1 shall be done using a total capital cost which is the documented actual costs for adding fuel reburning to Unit 2 (but not to exceed \$8,000,000) to install reburn technology on Unit 1, and a NO_X reduction based on a comparison of the NO_X emissions with and without reburn technology (to three significant figures in units of lb/mmBtu). If the incremental CE is less than \$4,000 per ton of NO_X removed then reburn technology shall be installed on Unit 1 as outlined in II.C.
- E. At FPL's option, reburn technology may be installed on Unit 1 prior to initial compliance testing. If FPL elects this option, the requirements and provisions of paragraphs II.A. and B. shall govern with respect to Unit 1 in lieu of the requirements and provisions of paragraphs I.B. and C.
- III. BEST AVAILABLE CONTROL TECHNOLOGY (BACT) FOR CO EMISSIONS

Carbon monoxide (CO) emissions will be limited to 0.325 lb/mmBtu through the use of combustion controls.

b. BACT Procedure

The air pollutant emissions from fossil fuel-fired power plants can be grouped into categories based upon the control equipment and techniques that are available to control emissions from these facilities. Using this approach, the emissions can be classified as follows:

Combustion Products (e.g., Particulates) -- Controlled generally by good combustion of clean fuels and baghouse filters or electrostatic precipitators (ESP).

Manatee County

Page 5

Products of Incomplete Combustion (e.g., CO and VOC) -- Controlled generally by proper combustion techniques.

Acid Gases (e.g., NO_X and SO_2) -- Controlled generally by gaseous control devices.

Grouping the pollutants in this manner facilitates the BACT analysis because it enables the equipment available to control the type or group of pollutants emitted and the corresponding energy, economic, and environmental impacts to be examined on a common basis. Although all of the pollutants addressed in the BACT analysis may be subject to a specific emission limiting standard as a result of PSD review, the control of "nonregulated" air pollutants is considered in imposing a more stringent BACT limit on a "regulated" pollutant (i.e., particulates, sulfur dioxide, fluorides, sulfuric acid mist, etc.), if a reduction in "nonregulated" air pollutants can be directly attributed to the control device selected as BACT for the abatement of the "regulated" pollutants.

c. BACT Analysis

Combustion Products

Due to the higher levels of fuel bound sulfur, nitrogen, ash and vanadium compared with fuel oil, air pollution controls are needed when firing Orimulsion in the Manatee units to meet current emission standards. FPL will install an electrostatic precipitator (ESP) manufactured by Mitsubishi to control particulate matter (PM). The projected emission changes of particulate matter and particulate matter smaller than 10 micrometers in size (PM $_{10}$) from the firing of Orimulsion and fuel oil will be limited by a permit condition (TPY cap) to avoid exceeding the significant emission rates given in Florida Administrative Code, Rule 62-212, Table 400-2. Larger capacity ESPs than originally designed may be required to collect PM associated with sulfur trioxide (SO $_{3}$) emissions when fuel reburning for NO $_{X}$ control is employed.

Products of Incomplete Combustion

Increases in Volatile Organic Compounds (VOC) emissions while firing Orimulsion were projected be below the PSD significant emission rate of 40 TPY. The increase in emissions of carbon monoxide (CO) will exceed the PSD significant emission rate of 100 TPY.

Carbon Monoxide (CO) emissions are directly related to combustion conditions in the furnace. CO emissions are the result of incomplete combustion. The New Source Performance Standards (NSPS) for utility boilers does not specify emission standards for CO. Options for reducing CO emissions include combustion controls

Manatee County

Page 6

and post combustion controls. Combustion controls which promote more complete combustion, such as higher levels of excess air, will have an adverse impact on NO_{X} emission controls. Catalytic conversion of CO to CO2 has not been demonstrated on utility boilers of this type. FPL has proposed a CO limit of 0.335 lb/mmBtu. This is about 50 percent lower than the current emission rate (lb/mmBtu) on fuel oil. FPL has stated that the $\mathrm{NO}_{\mathrm{X}}/\mathrm{CO}$ emission rates will be optimized to ensure that the NO_{X} emission limit is achieved while minimizing CO emissions.

Acid Gases

The emissions of sulfur dioxide (SO₂), nitrogen oxides (NO_X), hydrogen fluoride (HF), and sulfuric acid mist (H₂SO₄), as well as other acid gases which are not regulated under the PSD Rule, represent significant potential air pollutant emissions which must be subject to appropriate control. Uncontrolled sulfur dioxide emissions are directly related to the sulfur content of the fuel.

SO2 and Acid Gases

BACT is not required for sulfur dioxide, sulfuric acid, or hydrogen fluoride since annual emissions are projected to decrease as a result of the proposed project. The sulfur dioxide and sulfuric acid emissions and proposed controls are described as follows:

Sulfur compounds are formed when fuel bound sulfur is oxidized, forming primarily SO₂ and smaller quantities of sulfur trioxide (SO₃). Vanadium emissions from firing Orimulsion can, over time, plate out onto the boiler tubes in the furnace. This vanadium can then catalyze the formation of additional SO₃ emissions. SO₃ can further react with water present in the flue gas to form sulfuric acid (H₂SO₄). The control of SO₂ and acid gas emissions is accomplished primarily by removing these pollutants from the flue gas by wet or dry scrubbing. Wet scrubbing using a flue gas desulfurization system (FGD) is accomplished by passing the flue gas through a scrubbing liquid in a water saturated environment. Particulates and other gases, such as ammonia, can also be collected in the wet scrubber. These pollutants become a part of the liquid slurry and are treated in a wastewater treatment and disposal system.

The applicant will install a wet limestone spray tower developed by Mitsubishi, to reduce SO_2 and other acid gas emissions. This will result in a decrease in both short term emissions (lb/hr) and annual emissions of SO_2 by more than 10,000 TPY when firing Orimulsion. SO_3 formation in the furnace may be increased as a result of fuel reburning to control NO_X emissions. Sulfuric acid emissions (including SO_3 emissions as measured by EPA Method 8) when firing Orimulsion will be limited to below current

Manatee County

Page 7

actual emission rates in the permit.

Nitrogen Oxides (NOx)

Nitrogen oxides are formed from high temperature reactions between oxygen (from the combustion air) and fuel bound nitrogen and/or molecular nitrogen (in the combustion air). Fuel bound nitrogen levels for Orimulsion are in the range of 0.4 to 0.8 percent nitrogen. Nitrogen oxides (NO_X) are precursors of acid rain and ground level ozone. Both SO_2 and NO_X are considered acid gases but their formation and control are fundamentally different.

Mitigation of acid rain and ground level ozone is the major emphasis of the 1990 Clean Air Act Amendments (CAAA). Title IV of the CAAA requires the establishment of nitrogen oxide emission limits for coal fired boilers to reduce nationwide emissions by two million tons per year.

The FPL Manatee project is the first proposal to burn Orimulsion in the United States and there are no previous BACT determinations to use as a reference. Current options for reducing NO_{X} emissions consist of combustion controls and post combustion controls. Combustion controls such as Low NO_{X} Burners (LNB), Over Fire Air (OFA), and Exhaust Gas Recirculation (EGR) are engineered to avoid forming nitrogen oxides in the flame zone. These are pollution prevention techniques that tend to be the least expensive and least energy intensive to employ while achieving significant emission reductions. Fuel reburning is a type of combustion control which uses a reducing agent (such as natural gas) to reduce the oxides of nitrogen prior to leaving the combustion zone. Post-combustion NOx controls include selective catalytic (SCR) and selective noncatalytic reduction (SNCR).

Combustion Controls for NOx

FPL provided data from testing of combustion controls, including Low NO_{X} Burners (LNB), when firing Orimulsion. Single burner testing was conducted at the Babcock Energy Limited's Large Scale Burner Test Facility in Renfrew, Scotland in July, 1994. Full scale testing was conducted at the FPL Sanford plant (400 MW) in 1990. Test data revealed that water in the Orimulsion reduced peak flame temperatures and suppressed thermal NO_{X} formation. Also, Orimulsion can be combusted at lower levels of excess oxygen (0.6 percent oxygen) which tends to reduce NO_{X} . Uncontrolled NO_{X} emissions from Orimulsion at the Sanford plant showed 30 percent lower emissions than for No. 6 fuel oil firing. Emissions from Orimulsion at the Sanford plant averaged 0.51 lb/mmBtu. These tests represent uncontrolled emissions since neither LNB nor steam atomization is employed on the Sanford boiler.

Manatee County

Page 8

As detailed in a report prepared by Todd Combustion Inc. and FPL, NO $_{\rm X}$ emission reductions of approximately 30 percent were achieved with LNB technology. NO $_{\rm X}$ reductions showed a strong dependence on the level of excess oxygen with higher NO $_{\rm X}$ emissions observed at higher excess oxygen concentrations in the boiler exhaust gases. Exhaust gas recirculation (EGR) was found not to have a significant impact on NO $_{\rm X}$ emissions when burning Orimulsion. Based on the Scotland test data and corrected to the higher furnace heat release rates at the Manatee Plant, FPL estimates of NO $_{\rm X}$ emissions are 0.395 lb/mmBtu when Orimulsion is fired and only steam atomized burners are employed to control NO $_{\rm X}$. When employing Burners Out of Service (BOOS), Overfire Air (OFA), steam atomization, and Low NO $_{\rm X}$ Burners (LNB), controlled NO $_{\rm X}$ emissions at the Manatee Plant were initially projected to be 0.295 lb/mmBtu at 0.6 percent excess oxygen. FPL has indicated that they can achieve less than 0.27 lb/mmBtu NO $_{\rm X}$ with combustion controls (LNB).

Fuel Reburning

Fuel reburning technology has recently been demonstrated on coal fired boilers using natural gas or coal as the reburning fuel. Most of the experience in the United States has been with natural gas as the reburning fuel. Typically the reburning fuel is used at a rate of 10 to 20 percent of the total heat input to the boiler. Fuel reburning applied to Orimulsion combustion has not been demonstrated in the United States and NOx reductions are uncertain. In order to minimize annual NO_{X} emissions FPL will install fuel reburning with Orimulsion as the reburning fuel in Unit 2. If additional NO_{X} reductions of 20% or more are achieved, then the emission standard for both units will be lowered to the level which has been demonstrated on Unit 2.

SNCR

Selective noncatalytic reduction (SNCR) systems do not employ a catalyst and, therefore, operate at higher temperatures than SCR systems. The two commercially available SNCR processes are NO_XOUT by EPRI and $DeNO_X$ by Exxon Corporation. These systems use either ammonia or urea as reagents to inject into the flue gas. FPL provided information that showed SNCR is not technically feasible as a retrofit to the Manatee boilers. SNCR would not be feasible as a retrofit to the Manatee boilers since the exhaust gas residence times, at temperatures of 1,500°F to 2,200°F, are too short and the flow is split in the backpass section of the boiler. Also, since no catalyst is used in an SNCR system, greater than stoichiometric quantities of ammonia or urea are required, thus increasing the formation of ammonium and sulfur compounds (salts) and potential air preheater plugging. Ammonia slip is typically higher for SNCR than for SCR systems.

Manatee County

Page 9

SCR Front-Side System

The major technical concerns in the past for SCR application to coal fired utility boilers have included ammonia slip, potential conversion of SO2 to SO3 by the catalysts and the resultant formation of ammonia salts, and the poisoning of the catalyst by trace constituents of United States coals such as arsenic. Although there is limited experience with SCR applications to existing coal fired boilers in the United States, current SCR systems applied to new coal fired boilers have been designed to minimized these problems. Currently there are two new coal fired utility boilers under construction in Florida which employ SCR: O.U.C. Stanton in Orlando, and Indiantown Cogeneration in Martin Indiantown Cogeneration is currently undergoing initial start-up and preliminary performance testing. Other SCR systems have been employed within the past five years to coal fired units in New Jersey, New Hampshire and Maine. These SCR applications typically have permitted NOx limits of 0.17 lb/mmBtu with ammonia slip limited to 5 ppm.

Ammonia slip is controlled in current SCR designs to no more than 5 ppm by continuous monitoring of NO_{X} emissions prior to and after the catalyst. This limits the amount of excess ammonia available for reaction with SO_3 to form ammonium sulfate and ammonium bisulfate particulates. Also, current sulfur resistant catalyst designs have limited the SO_2 to SO_3 conversion when firing coal to less than 1 percent.

FPL has cited the following reasons that a front side (prior to the air heaters) SCR system is technically infeasible: 1) SO₃ formation; forced outage of both units; 2) high vanadium/sulfur environment (corrosion problems in air heater and ducts prior to the FGD scrubber due to sulfuric acid formation), 3) contamination of ash with ammonia (FGD sludge would not be salable as gypsum and fly ash would not be saleable for cement). Also, FPL commented that space difficulties would cause increased costs for this retrofit since there is currently insufficient space between the air heater and boiler.

World-wide use of Orimulsion includes the Kansai Electric Power Unit 4 (156 MW) which employs reburning and a front side SCR system. This SCR retrofit by Mitsubishi was completed in December of 1994. Unit 4 is a peaking unit which is used most frequently in the summer. To control SO3 emissions, ammonia is also injected upstream of the ESP to form sulfate particulates which are collected in the ESP. Due the increased load of sulfate particulates, the ESP capacity on Unit 4 was increased. Experience with this SCR application is limited and not considered demonstrated technology in the United States. Mitsubishi has installed reburn systems on two industrial boilers in Japan which fire Orimulsion. One of these industrial boilers, the Kashima-Kita

Manatee County

Page 10

Unit #2 was retrofitted with reburning controls in 1991.

Back-Side SCR System

FPL evaluated a SCR system located downstream of the ESP and FGD scrubber to eliminate the problems associated with SO3 formation and ammonia contamination of the sludge and ash. solution comes at large energy and economic costs. There would also be modest increases in several pollutants other than NO_X from the combustion of fuel oil used to reheat the exhaust gases prior to the SCR catalyst. An engineering evaluation submitted by FPL indicated that additional equipment would be needed in addition to the ammonia injection system/catalyst to implement the back-side SCR system (see attached FPL Cost Analysis). Due to the high volumes of exhaust gases, two trains of duct work would be needed for each boiler. Following the FGD system, each train would include a gas heater (steam to exhaust gas) followed by a rotary regenerative air heater (hot side), a duct burner firing No. 2 fuel oil at a rate of 260 mmBtu/hr (approximately 14 million gallons/yr of No. 2 fuel oil), followed by the ammonia injection system, the catalyst, the cold side of the rotary regenerative air heater, a booster fan and then exit to the stack. The electrical demand from this equipment will require an additional 20 MW.

The back-side SCR system is expensive to implement at the FPL Manatee Plant due to several factors: 1) low emission rates from the proposed combustion controls (LNB) means relatively small reductions when SCR is added and therefore high values of \$/ton removed, 2) the back-side SCR system is energy intensive which results in high operating costs, and it is capital intensive since additional fans, duct burners, and rotary regenerative air heaters are required, and 3) retrofits with space limitations are inherently more expensive projects than new designs.

The cost effectiveness (CE) of LNB is less than \$1000 per ton NO_X removed. The incremental cost effectiveness for the Back-side SCR system (with emissions of 0.17 lb/mmBtu) were made compared to LNBs with NO_X emissions of 0.27 lb/mmBtu. The incremental CE was calculated at \$8,867 per ton NOx removed. This is significantly higher than front-side SCR applications for new coal fired boilers which are in the range of \$3,000-\$4,000 per ton. The capital cost for the back-side SCR system was supplied by FPL at \$83,923,600 per unit (\$105 per KW). The total annual cost, including O_X M costs, annual overhead, property taxes and insurance, replacement catalyst costs (five year life) and capital recovery costs (10% interest over 20 years) is \$27,098,400 per year per unit. FPL's Cost Analysis for a back-side SCR system on one of the boilers is attached.

Manatee County

Page 11

Environmental Factors

The conversion to Orimulsion will result in increased utilization of the Manatee plant. Even with the increased utilization, emissions of SO_2 will decrease from current levels. Emissions of particulates will not increase above current actual emission levels due to the additional pollution control equipment and a permit limit on annual particulate emissions. Short term emissions of NO_X (lb/hr) will be lower with Orimulsion but annual emissions would increase by approximately 9,000 TPY (from 6,827 TPY to 15,742 TPY) using Low NO_X Burners (with an allowable emission limit of 0.27 lb/mmBtu, and 7,650 mmBtu/hr heat input) as the capacity factor will increase from 30 percent to approximately 87 percent. Using Selective Catalytic Reduction (SCR) (with an allowable emission limit of 0.17 lb/mmBtu) the annual emissions would still increase (approximately 3,000 TPY -- from 6,827 TPY to 9,912 TPY). Fuel reburning is likely to result in a NO_X emissions increase between 3,000 and 9,000 TPY.

Local environmental impacts associated with increased annual emissions of NO_{X} include: 1) increased annual deposition of nitrates on the surrounding watershed and Tampa Bay, and 2) the impacts on the Tampa Bay ozone nonattainment area. The Tampa Bay National Estuary Program (NEP) has identified air deposition of nitrogen as a significant source affecting the water quality of Tampa Bay. Rough estimates of between 0.3 and 0.8 percent increase in nitrogen deposition from this project have been given by FPL. Although impacts on ozone production on the Tampa Bay Ozone area have not been quantified, computer modeling has shown that the proposed projects impacts will not exceed either the ambient air quality standard nor the PSD increment for NO_{X} .

The inventory of NO_{X} emissions in the Tampa Bay area include contributions from the stationary sources and the mobile sources. The inventory of total annual NO_{X} emissions was approximately 526 TPD or roughly 192,000 TPY, with mobile sources contributing roughly 37 percent of the total (based on 1990 inventory of Hillsborough, Pinellas, Pasco, and Hernando counties).

The use of an ESP to control particulate emissions from the boiler does not appear to have any negative environmental impacts. However, the energy impact is considered significant since about 1,500 KW of energy is required to operate the ESP.

The use of a wet scrubber for SO₂/acid gas control can result in a high consumption of water and problems disposing of the slurry. These problems can be reduced by reusing the water and recycling the slurry into building products. Also, since Orimulsion has a high water content (30%), evaporative losses in the wet scrubber will be lower than when other fuels are fired, i.e. less make-up water is needed.

Manatee County

Page 12

DEP BACT Determination

Post combustion controls are the only demonstrated technology capable of achieving NO_X levels as low as 0.17 lb/mmBtu for the Manatee boilers. The combination of high vanadium and high SO2 fuel (Orimulsion and high sulfur No. 6 fuel oil), along with the SCR catalyst and injected ammonia promote the formation of ammonium salts. These particulates can build up on equipment in the exhaust ducts and cause flow restrictions. For a baseloaded unit firing Orimulsion, a front-side SCR system designed to achieve \mathtt{NO}_{X} levels of 0.17 lb/mmBtu is not considered demonstrated technology in the United States. A SCR system located downstream of the FGD and ESP avoids the formation of ammonium salts, the poisoning of the catalyst by heavy metals, the plugging of the catalyst by particulate matter, and system corrosion as a result of SO3 formation. This "back-side system" costs approximately \$8,867 per ton of NO_X removed compared to combustion controls (LNB) and would not normally be considered cost effective in comparison to other BACT determinations.

The Department accepts the BACT requested by the applicant for NO_X and CO with the following additional requirements: rate for the reburning fuel shall be varied to find the optimum rate for NO_X control. During the six month test period FPL shall include feed rates of reburning fuel in the range of 10 to 20 percent of the total heat input to the boiler. If the optium feed rate of fuel for reburning is outside of this range, FPL shall submit a professional engineer's analysis and a statement certifying that the reburn technology for Unit 2 is designed to maximize the reduction in NO_X emissions practicably achievable with this technology in this application. The NOx emission limit, once established, shall be based on a 30 day rolling average. day rolling average emission rates shall be calculated in accordance with the requirements in New Source Performance Standards (NSPS) Subpart Da. As specified in Subpart Da, compliance shall be demonstrated on a continuous basis using a continuous emission monitoring system (CEMS) for NO_X. NO_X emission rates (lb/mmBtu) shall be calculated based on a calculated carbon based factor (F_C) pursuant to 40 CFR 75 Appendix F equation F-7b. Data collection and quality assurance with this monitoring system are required pursuant to 40 CFR Part 75 (Acid Rain program). Quarterly emission reports for NO $_{ extsf{X}}$, as required in 40 CFR 60.49a, shall be submitted the Department.

It is anticipated that reburn technology will result in an increase in SO_3 emissions over a period of time. FPL shall employ emission control designs which minimize SO_3 formation or control SO_3 emissions which have been generated. This may require ammonia injection upstream of the ESP and increased capacity of the ESP to collect the additional particulate matter associated with SO_3

BACT: Florida Power & Light Company Manatee County Page 13

controls. Alternately, an SO_3 control system which is designed to convert SO_3 to SO_2 may be used.

Details of the Analysis may be Obtained by Contacting:

Martin Costello, P.E. Department of Environmental Protection Bureau of Air Regulation 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Recommended by:	Approved by:
C. H. Fancy, P.E., Chief Bureau of Air Regulation	Virginia B. Wetherell, Secretary Dept. of Environmental Protection
1995	1995 Date

Table 1: Significant and Net Emission Rates (Tons per Year)

	Low Sulfur Fuel	Projected	Proposed	Significant	Applicable
Pollutant	Oil	Maximum	Net Emissions	Emission	Pollutant
	Actual Emissions _a	Emissions _b	Increase	Rate	(Yes/No)
PM **	1,707	1,707	0	25	No
PM ₁₀ **	1,707	1,707	0	15	No
SO ₂	24,492	13,643	-10,849	40	No
NO _X	6,827	15,742 *	8,915	40	Yes
СО	15,463	18,948	3,485	100	Yes
VOC	122	117 ***	-5	40	No
Lead	0.683	0.163 +	-0.520	0.6	No
Mercury	0.078	0.006 ***	-0.072	0.1	No
Beryllium	0.10240	0.00036 ***	-0.10205	0.0004	No
Fluorides	0.15	0.037 +	-0.117	3	No
Sulfuric Acid Mist	1,122	420 ***	-702	7	No

- a--NO_X and particulate emission rates based on 1993 and 1994 fuel data, heat content of 152 mmBtu/kgal and average emissions from stack test reports. SO₂ emissions based on annual operating report (AOR). Emission rates for other pollutants based on emission factors.
- b--based on 87 percent capacity factor and a maximum continuous heat input rating of 7,650 mmBtu/hr firing Orimulsion.
- * Based on NO_X emission limit of 0.27 lb/mmBtu as provided by FPL. Annual NO_X emissions with a limit of 0.17 lb/mmBtu would be 9,912 TPY.
- ** Annual PM/PM₁₀ emissions capped at previous actual emission level by permit condition.
- *** Based on emission rates from tests on Orimulsion submitted by FPL.
- + Based on EPA emission factor and 90% control.





Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard

Tampa, Florida 33610-7347

Lawton Chiles, Governor

813-620-6100

Carol M. Browner, Secretary ertains to

11/4/2 Uni+#1

Florida Power & Light Company P.O. BOX 088801 North Palm Beach, FL 33408-8801 PERMIT/CERTIFICATION Permit No: A041-204804

County: Manatee

Expiration Date: 01/14/97 Project: Manatee Power Plant

Unit No. 1

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 & 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

For operation of Unit No. 1 at Florida Power & Light Company's (FPL) Manatee Power Plant. Unit 1 is an 800 MW class (approximately 877 MW gross) Foster Wheeler oil fired steam generator. The maximum heat input rate while firing No. 6 fuel oil is 8,650 million (MM) Btu per hour.

Particulate matter emissions are controlled by two UOP Aerotec DES 104B-GHS mechanical dust collectors designed to handle approximately 2,160,000 ACFM at 305° F. Each of the two mechanical dust collectors contains 1,323 centrifugal precipitating tubes.

Sulfur dioxide emissions are controlled by limiting the sulfur content of the fuel.

Nitrogen oxides emissions are reduced by utilizing over-fire air ports, gas injection, and bias firing.

Location: Highway 62, 5 miles NE of Parrish, FL.

3054.1 N 17-367.3 E NEDS NO: 0010 Point ID:

Replaces Permit No.: A041-127329

Page 1 of 7

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

PERMIT/CERTIFICATION
Permit No: A041-204804

County: Manatee

Expiration Date: 01/14/97
Project: Manatee Power Plant

Unit No. 1

SPECIFIC CONDITIONS:

(1) A part of this permit is the attached 15 General Conditions.

(2) Heat Input Rate:

The heat input rate shall not exceed 8,650.0 MM Btu/hr while burning fuel oil. If this source is burning 100% natural gas, then the heat input rate shall not exceed 9,040.0 MM Btu/hr. [Requested in the permit application].

(3) Permitted Fuels:

The only fuels authorized to be burned in this source are, (a) No. 6 residual fuel oil, (b) No. 2 fuel oil, (c) natural gas, or (d) used oil from FPL operations. These-fuels-may be mixed or burned simultaneously. [Requested in the permit application].

(4) Source Emission Limiting Standards and Compliance Testing Requirements:

	EMISSION (1)	TESTI	NG FREQUENC	Y (a)	TEST C)
POLLUTANT	LIMITING STDS.	ANNUAL			METHOD
Particulate Matter					
- Steady-State	0.10 lb/MM Btu	x			EPA Method 5 or 17 (4)
- Sootblowing and Load Changing	0.30 lb/MM Bm (5) (Max 3 hrs in 24 hrs)	x			EPA Method 5 or 17 ⁽⁴⁾
Sulfur Dioxide	1.10 lb/MM Btu			x	Fuel Analysis
Visible Emissions					
- Steady-State	40% Opacity	X *6)			DER Method 9 ⁽⁷⁾
- Sootblowing and Load Changing	60% Opacity for 69 up to 3 hrs in 24 hrs, with up to four 6-minute periods of up to	x			DER Method 9 ⁽⁷⁾
	100% if unit has an operational opacity CEM.				
Nitrogen Oxides (expressed as NO ₂)	0.30 lb/MM Bu	x			EPA Method 7 or 7E

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

SPECIFIC CONDITIONS:

PERMIT/CERTIFICATION Permit No: A041-204804

County: Manatee

Expiration Date: 01/14/97
Project: Manatee Power Plant

Unit No. 1

Footnotes:

- (1) Rules 17-2.600(5)(a) and 17-2.250(3), F.A.C.
- (2) Rule 17-2.700(2), F.A.C.
- (3) Rule 17-2.700(1)(d), F.A.C.
- (4) EPA Method 17 may be used only if the stack gas exit temperature is less than 375°F.
- (5) Rule 17-2.250(3), F.A.C. Excess emissions are authorized only if (a) best operational practices to minimize emissions are adhered to, and (b) the duration of excess emissions is minimized.
- (6) This source has been authorized by Order of the Department's Secretary dated April 24, 1984 to test particulate matter emissions and visible emissions annually with a 40% opacity limit. If FPL fails to demonstrate compliance with an applicable particulate or visible emission standard, then the Order will terminate upon written notice by the Department.
- (7) Actual transmissometer data during steady state and sootblowing particulate matter emissions testing is acceptable in lieu of DER Method 9 testing.

(5) Compliance Testing Related Requirements:

(a) Notification - Rule 17-2.700(2)(a)9., F.A.C.

FPL shall notify the Southwest District Office of the Department of Environmental Regulation, and the Manatee County Environmental Action Commission, at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner. The Department may waive the 15 day notice requirement on a case by case basis.

(b) Conditions - Rule 17-4.070(3), F.A.C.

Compliance testing of particulate, nitrogen oxides, and visible emissions should be conducted while the source is firing No. 6 residual fuel oil at the maximum allowable rate of 8,650.0 MM Btu per hour. Particulate and visible emissions tests shall be conducted under both sootblowing and non-soot blowing conditions, and should be conducted while injecting MgO at the maximum requested rate of 105 pounds per hour.

Testing may be conducted with the source firing No. 6 residual fuel oil at less than 90 percent of the maximum allowable rate, or while injecting MgO at less than 90 percent of the maximum requested rate; however, if so, subsequent source operation is limited to the average No. 6 residual fuel oil firing rate during the test and the average injection rate of MgO during the test. Once the unit is so limited, then operation at higher No. 6 residual fuel oil firing rates or higher MgO injection rates is allowed for a cumulative total of no more than fifteen days for purposes of additional compliance testing to regain the higher rates, not to exceed 8,650.0 MM Btu per hour of No. 6 residual fuel oil nor 105 pounds per hour of MgO.

Florida Power & Light Company P.O. Box 088801 North Palm Beach, FL 33408-8801 PERMIT/CERTIFICATION Permit No: A041-204804

County: Manatee

Expiration Date: 01/14/97 Project: Manatee Power Plant

Unit No. 1

SPECIFIC CONDITIONS:

In order to provide the Department with reasonable assurance that this source can comply with both the particulate and nitrogen oxides standards simultaneously, the steady state particulate tests and the nitrogen oxides tests shall be conducted under substantially identical operating conditions. Fuel to air ratios and stack O₂ during testing shall be substantially identical.

Operating at conditions during testing which do not reflect normal operating conditions may invalidate a test.

(c) Test Schedule:

Stack tests shall be conducted at least on an annual basis, within 30 days of the date April 17.

(d) Stack Sampling Facility - Rule 17-2.700(4), F.A.C.

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

(e) Report Submittal - Rules 17-2.700(7) and 17-4.070(3), F.A.C.

A copy of the test results shall be submitted to the Department's Southwest District Office and the Manatee County Environmental Action Commission within 45 days after the last test run is completed. The test report shall provide the actual heat input rate and at least all of the information listed in Rule 17-2.700(7)(c), F.A.C., including the MgO injection rate. A copy of the continuous opacity monitor strip chart recorded during each compliance test shall be submitted with the test reports. Each test report shall also include a fuel oil analysis from a representative sample of the fuel oil burned during the test and a calculation of the sulfur dioxide emission rate in pounds per MM Btu heat input and pounds per hour. Failure to submit any of the above information may invalidate the test.

(6) Recordkeeping to Document Compliance with the Sulfur Dioxide Emission Limit - Rule 17-4.070(3), F.A.C.

FPL shall maintain daily records in a permanent form suitable for inspection documenting the sulfur content of all fuel burned. The records shall contain, at a minimum, for each day, the sulfur content of all fuel burned, and a calculation of the daily average sulfur dioxide emissions in pounds per hour and pounds per MM Btu heat input. Compliance shall be based upon the daily average. The records shall contain sufficient detail to allow the Department to determine whether the emissions were properly computed. All recorded data shall be maintained on file for a period of at least 2 years. FPL shall submit a monthly summary of the daily averages for fuel sulfur content and sulfur dioxide emissions on a quarterly basis, within 30 days following each calendar quarter.

(7) Annual Operations Report (AOR):

On or before March 1 of each calendar year, a completed DER Form 17-1.202(6), Annual Operation Report Form for Air Emissions Sources, listing emissions of all air pollutants for the preceding calendar year, shall be submitted to the Department's Southwest District Office and the Manatee County Environmental Action Commission. The report shall provide sufficient detail to allow the Department to determine whether the emissions were properly computed.



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

PERMIT/CERTIFICATION
Permit No: A041-204804

County: Manatee

Expiration Date: 01/14/97
Project: Manatee Power Plant

Unit No. 1

SPECIFIC CONDITIONS:

(8) Excess Emissions

(a) Events - Rule 17-2.250, F.A.C.

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

Excess emissions resulting from malfunction are permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions is minimized but in no case exceeds two hours in any 24-hour period unless specifically authorized by the Department for longer duration.

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 are prohibited.

(b) Notification - Rules 17-2.250(6) and 17-4.130, F.A.C.

In the event the permittee is temporarily unable to comply with any of the conditions of the permit, the permittee shall immediately notify the Department's Southwest District Office and the Manatee County Environmental Action Commission. Notification shall be conducted in accordance with General Condition (8) of this permit. In case of excess emissions resulting from malfunctions, a full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

(c) Quarterly Report Submittal - Rules 17-2.710(1), 17-2.710(2), and 17-4.070(3), F.A.C.

FPL shall submit to the Department of Environmental Regulation and the Manatee County Environmental Action Commission a written report of emissions in excess of the emission limiting standards as set forth in Rule 17-2.600(5), F.A.C. for each calendar quarter. The nature and cause of the excessive emissions shall be explained. This report does not relieve FPL of the legal liability for violations. All recorded data shall be maintained on file for a period of at least 2 years. The information supplied in this report shall be consistent with the reporting requirements of 40 CFR 51 Appendix P. The report shall be submitted within 30 days following each calendar quarter.

(9) <u>Used Oil Combustion:</u>

- (a) This source is permitted to burn on-specification used oil originated from FPL operations.

 FPL shall not burn off-specification used oil. Used oil which fails to comply with any of the following specification levels is off-specification used oil [Requested by applicant; 40 CFR 266 Subpart E]:
 - 1. Arsenic shall not exceed 5.0 ppm.
 - 2. Cadmium shall not exceed 2.0 ppm.
 - 3. Chromium shall not exceed 10.0 ppm.
 - 4. Lead shall not exceed 100.0 ppm.
 - 5. Total halogens shall not exceed 1,000.0 ppm
 - 6. Flash point shall not be less than 100.0 °F.

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

PERMIT/CERTIFICATION Permit No: A041-204804

County: Manatee

Expiration Date: 01/14/97
Project: Manatee Power Plant

Unit No. 1

SPECIFIC CONDITIONS:

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

- (c) Results of used oil sampling and analysis performed pursuant to Specific Condition 9(b) shall be retained by the permittee for at least three (3) years and made available for inspection by the Department upon request.
- Monthly reports of the quantities of used oil burned and the results from the sample analyses performed pursuant to Specific Condition 9(b) shall be submitted to the Department's Southwest District Office and the Manatee County Environmental Action Commission. FPL shall submit these reports within 30 days from the end of every calendar month in which used oil was burned. Furthermore, the quantities of burned used oil and the associated sample analyses shall be included in the Annual Operation Report (AOR) for Air Emissions Sources.

(10) Continuous Emission Monitoring - Rule 17-2.710, F.A.C.

A continuous opacity monitoring system shall be calibrated, operated and maintained in accordance with Rule 17-2.710(1), F.A.C. This source is not exempted by Rule 17-2.710(1)(a)1.a., F.A.C. because a particulate emission control device is utilized (two UOP Aerotec DES 104B-GHS mechanical dust collectors with centrifugal precipitating tubes).

(11) Objectional Odors - Rule 17-2.620(2), F.A.C.

FPL shall not discharge air pollutants which cause or contribute to an objectionable odor.

(12) Hours of Operation:

The hours of operation are not restricted.

(13) Special Compliance Tests - Rule 17-2.700(2)(b), F.A.C.

If the Department of Environmental Regulation has reason to believe that any applicable emission standard is being violated, then the Department of Environmental Regulation may require FPL to conduct compliance tests which identify the nature and quantity of pollutant emissions and to provide a report on the results of said tests.

(14) Disposal of Spent Boiler Cleaning Chemicals - 40 CFR 60.14

If FPL chooses to dispose of spent boiler cleaning chemicals by injecting them into this source while operating, then FPL shall demonstrate to the Department that such disposal does not result in an increase in the actual rate of particulate matter emissions. The demonstration shall be conducted pursuant to the requirements of 40 CFR 60.14(b)(2) and 40 CFR 60 Appendix C. At least three valid test runs must be conducted before disposal of spent boiler cleaning chemicals, and at least three during disposal of spent boiler cleaning chemicals at the maximum disposal rate. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.



PERMITTEE: Florida Power & Light Company P.O. Box 088801 North Palm Beach, FL 33408-8801 PERMIT/CERTIFICATION Permit No: A041-204804 County: Manatee

Expiration Date: 01/14/97 Project: Manatee Power Plant

Unit No. 1

SPECIFIC CONDITIONS:

(15) Other Requirements - Rule 17-2.210, F.A.C.

Issuance of this permit does not relieve FPL from complying with applicable emission limiting standards or other requirements of Chapter 17-2, or any other requirements under federal, state, or local law. Future regulations may impact this facility at some future date. FPL shall comply with any applicable future regulations when they become effective.

(16) Operation Permit Renewal - Rules 17-4.050(2) and 17-4.090(1), F.A.C.

Three applications to renew this operating permit shall be submitted to the Department of Environmental Regulation, and one application shall be submitted to the Manatee County Environmental Action Commission, by November 15, 1996.

> STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

Dr. Richard D. Garrity Director of District Management 3804 Coconut Palm Drive Tampa, Florida 33619-8318 Phone (813) 744-6100





Florida Department of Environmental Regulation

Southwest District

4520 Oak Fair Boulevard

Tampa, Florida 33610-7347

Lawton Chiles, Governor

813-620-6100

Carol M. Browner, Secretary

11/4/42

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

PERMIT/CERTIFICATION
Permit No: A041-219341

County: Manatee

Expiration Date: 11/14/97 Project: Manatee Power Plant

Unit No. 2

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 & 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

For operation of Unit No. 2 at Florida Power & Light Company's (FPL) Manatee Power Plant. Unit 2 is an 800 MW class (approximately 877 MW gross) Foster Wheeler oil fired steam generator. The maximum heat input rate while firing No. 6 fuel oil is 8,650 million (MM) Btu per hour.

Particulate matter emissions are controlled by two UOP Aerotec DES 104B-GHS mechanical dust collectors designed to handle approximately 2,160,000 ACFM at 305° F. Each of the two mechanical dust collectors contains 1,323 centrifugal precipitating tubes.

Sulfur dioxide emissions are controlled by limiting the sulfur content of the fuel.

Nitrogen oxides emissions are reduced by utilizing over-fire air ports, gas injection, and bias firing.

Location: Highway 62, 5 miles NE of Parrish, FL.

UTM: 17-367.3 E 3054.1 N NEDS NO: 0010 Point ID: 02

Replaces Permit No.: A041-140480

Page 1 of 7

Recycled Paper

forida Power & Light Company F.O. Box 088801 North Palm Beach, FL 33408-8801 PERMIT/CEL CATION
Permit No: A041-219341
County: Manatee

Expiration Date: 11/14/97
Project: Manatee Power Plant

Unit No. 2

TEST (3)

SPECIFIC CONDITIONS:

(1) A part of this permit is the attached 15 General Conditions.

EMISSION (1)

(2) Heat Input Rate:

The heat input rate shall not exceed 8,650.0 MM Btu/hr while burning fuel oil. If this source is burning 100% natural gas, then the heat input rate shall not exceed 9,040.0 MM Btu/hr. [Requested in the permit application].

(3) Permitted Fuels:

The only fuels authorized to be burned in this source are, (a) No. 6 residual fuel oil, (b) No. 2 fuel oil, (c) natural gas, of (d) used oil from FPL operations. These fuels may be mixed or burned simultaneously. [Requested in the permit application].

TESTING FREQUENCY (a)

(4) Source Emission Limiting Standards and Compliance Testing Requirements:

POLLUTANT	LIMITING STDS.	ANNUAL	QUARTERLY	OTHER	METHOD
Particulate Matter					
- Steady-State	0:10 lb/MM Bm	X	·		EPA Method 5 or 17 ⁽⁴⁾
- Sootblowing and Load Changing	0.30 lb/MM Btu (5) (Max 3 hrs in 24 hrs))x		-	EPA Method 5 or 17 ⁽⁴⁾
Sulfur Dioxide	1.10 lb/MM Btu			х	Fuel Analysis
Visible Emissions					
- Steady-State	40% Opacity	X 60	******		DER Method 9 ⁽⁷⁾
- Sootblowing and Load Changing	60% Opacity for (5) up to 3 hrs in 24 hrs, with up to four 6-minute periods of up to 100% if unit has an operational opacity CEM.	X			DER Method 9 (7)
Nitrogen Oxides (expressed as NO ₂)	0.30 lb/MM Bm	X			EPA Method 7 or 7E

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

SPECIFIC CONDITIONS:

PERMIT/CERTIFICATION
Permit No: A041-219341

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Unit No. 2

Footnotes:

- (1) Rules 17-2.600(5)(a) and 17-2.250(3), F.A.C.
- (2) Rule 17-2.700(2), F.A.C.
- (3) Rule 17-2.700(1)(d), F.A.C.
- (4) EPA Method 17 may be used only if the stack gas exit temperature is less than 375°F.
- (5) Rule 17-2.250(3), F.A.C. Excess emissions are authorized only if (a) best operational practices to minimize emissions are adhered to, and (b) the duration of excess emissions is minimized.
- (6) This source has been authorized by Order of the Department's Secretary dated April 24, 1984 to test particulate matter emissions and visible emissions annually with a 40% opacity limit. If FPL fails to demonstrate compliance with an applicable particulate or visible emission standard, then the Order will terminate upon written notice by the Department.
- (7) Actual transmissometer data during steady state and sootblowing particulate matter emissions testing is acceptable in lieu of DER Method 9 testing.

(5) Compliance Testing Related Requirements:

(a) Notification - Rule 17-2.700(2)(a)9., F.A.C.

FPL shall notify the Southwest District Office of the Department of Environmental Regulation, and the Manatee County Environmental Action Commission, at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner. The Department may waive the 15 day notice requirement on a case by case basis.

(b) Conditions - Rule 17-4.070(3), F.A.C.

Compliance testing of particulate, nitrogen oxides, and visible emissions should be conducted while the source is firing No. 6 residual fuel oil at the maximum allowable rate of 8,650.0 MM Btu per hour. Particulate and visible emissions tests shall be conducted under both sootblowing and non-soot blowing conditions, and should be conducted while injecting MgO at the maximum requested rate of 105 pounds per hour.

Testing may be conducted with the source firing No. 6 residual fuel oil at less than 90 percent of the maximum allowable rate, or while injecting MgO at less than 90 percent of the maximum requested rate; however, if so, subsequent source operation is limited to the average No. 6 residual fuel oil firing rate during the test and the average injection rate of MgO during the test. Once the unit is so limited, then operation at higher No. 6 residual fuel oil firing rates or higher MgO injection rates is allowed for a cumulative total of no more than fifteen days for purposes of additional compliance testing to regain the higher rates, not to exceed 8,650.0 MM Btu per hour of No. 6 residual fuel oil nor 105 pounds per hour of MgO.

RMITTEE:
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Unit No. 2

In order to provide the Department with reasonable assurance that this source can comply with both the particulate and NOx standards simultaneously, the steady state particulate tests and the nitrogen oxides tests shall be conducted under substantially identical operating conditions. Fuel to air ratios and stack O₂ during testing shall be substantially identical.

Operating at conditions during testing which do not reflect normal operating conditions may invalidate a test.

(c) Test Schedule:

Stack tests shall be conducted at least on an annual basis, within 30 days of the date December 19.

(d) Stack Sampling Facility - Rule 17-2.700(4), F.A.C.

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

(e) Report Submittal - Rules 17-2.700(7) and 17-4.070(3), F.A.C.

A copy of the test results shall be submitted to the Department's Southwest District Office and the Manatee County Environmental Action Commission within 45 days after the last test run is completed. The test report shall provide the actual heat input rate and at least all of the information listed in Rule 17-2.700(7)(c), F.A.C., including the MgO injection rate. A copy of the continuous opacity monitor strip chart recorded during each compliance test shall be submitted with the test reports. Each test report shall also include a fuel oil analysis from a representative sample of the fuel oil burned during the test and a calculation of the sulfur dioxide emission rate in pounds per MM Btu heat input and pounds per hour. Failure to submit any of the above information may invalidate the test.

(6) Recordkeeping to Document Compliance with the Sulfur Dioxide Emission Limit - Rule 17-4.070(3), F.A.C.

FPL shall maintain daily records in a permanent form suitable for inspection documenting the sulfur content of all fuel burned. The records shall contain, at a minimum, for each day, the sulfur content of all fuel burned, and a calculation of the daily average sulfur dioxide emissions in pounds per hour and pounds per MM Btu heat input. Compliance shall be based upon the daily average. The records shall contain sufficient detail to allow the Department to determine whether the emissions were properly computed. All recorded data shall be maintained on file for a period of at least 2 years. FPL shall submit a monthly summary of the daily averages for fuel sulfur content and sulfur dioxide emissions on a quarterly basis, within 30 days following each calendar quarter.

(7) Annual Operations Report (AOR):

On or before March 1 of each calendar year, a completed DER Form 17-1.202(6), Annual Operation Report Form for Air Emissions Sources, listing emissions of all air pollutants for the preceding calendar year, shall be submitted to the Department's Southwest District Office and the Manatee County Environmental Action Commission. The report shall provide sufficient detail to allow the Department to determine whether the emissions were properly computed.

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

PERMIT/CERTIFICATION Permit No: A041-219341

County: Manatee

Expiration Date: 11/14/97 Project: Manatee Power Plant

Unit No. 2

SPECIFIC CONDITIONS:

Excess Emissions (8)

(a) Events - Rule 17-2.250, F.A.C.

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

Excess emissions resulting from malfunction are permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions is minimized but in no case exceeds two hours in any 24-hour period unless specifically authorized by the Department for longer duration.

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 are prohibited.

(b) Notification - Rules 17-2.250(6) and 17-4.130, F.A.C.

In the event the permittee is temporarily unable to comply with any of the conditions of the permit, the permittee shall immediately notify the Department's Southwest District Office and the Manatee County Environmental Action Commission. Notification shall be conducted in accordance with General Condition (8) of this permit. In case of excess emissions resulting from malfunctions, a full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

(c) Quarterly Report Submittal - Rules 17-2.710(1), 17-2.710(2), and 17-4.070(3), F.A.C.

FPL shall submit to the Department of Environmental Regulation and the Manatee County Environmental Action Commission a written report of emissions in excess of the emission limiting standards as set forth in Rule 17-2.600(5), F.A.C. for each calendar quarter. The nature and cause of the excessive emissions shall be explained. This report does not relieve FPL of the legal liability for violations. All recorded data shall be maintained on file for a period of at least 2 years. The information supplied in this report shall be consistent with the reporting requirements of 40 CFR 51 Appendix P. The report shall be submitted within 30 days following each calendar quarter.

Used Oil Combustion:

- This source is permitted to burn on-specification used oil originated from FPL operations. FPL shall not burn off-specification used oil. Used oil which fails to comply with any of the following specification levels is off-specification used oil [Requested by applicant; 40 CFR 266 Subpart E]:
 - 1. Arsenic shall not exceed 5.0 ppm.
 - 2. Cadmium shall not exceed 2.0 ppm.
 - 3. Chromium shall not exceed 10.0 ppm.
 - 4. Lead shall not exceed 100.0 ppm.
 - 5. Total halogens shall not exceed 1,000.0 ppm.
 - 6. Flash point shall not be less than 100.0 °F.

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North Palm Beach, FL 33408-8801

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Expiration Date: 11/14/97
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Unit No. 2

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

- (c) Results of used oil sampling and analysis performed pursuant to Specific Condition 9(b) shall be retained by the permittee for at least three (3) years and made available for inspection by the Department upon request.
- (d) Monthly reports of the quantities of used oil burned and the results from the sample analyses performed pursuant to Specific Condition 9(b) shall be submitted to the Department's Southwest District Office and the Manatee County Environmental Action Commission. FPL shall submit these reports within 30 days from the end of every calendar month in which used oil was burned. Furthermore, the quantities of burned used oil and the associated sample analyses shall be included in the Annual Operation Report (AOR) for Air Emissions Sources.

(10) Continuous Emission Monitoring - Rule 17-2.710, F.A.C.

A continuous opacity monitoring system shall be calibrated, operated and maintained in accordance with Rule 17-2.710(1), F.A.C. This source is not exempted by Rule 17-2.710(1)(a)1.a., F.A.C. because a particulate emission control device is utilized (two UOP Aerotec DES 104B-GHS mechanical dust collectors with centrifugal precipitating tubes).

(11) Objectional Odors - Rule 17-2.620(2), F.A.C.

FPL shall not discharge air pollutants which cause or contribute to an objectionable odor.

(12) Hours of Operation:

The hours of operation are not restricted.

(13) Special Compliance Tests - Rule 17-2.700(2)(b), F.A.C.

If the Department of Environmental Regulation has reason to believe that any applicable emission standard is being violated, then the Department of Environmental Regulation may require FPL to conduct compliance tests which identify the nature and quantity of pollutant emissions and to provide a report on the results of said tests.

(14) Disposal of Spent Boiler Cleaning Chemicals - 40 CFR 60.14

If FPL chooses to dispose of spent boiler cleaning chemicals by injecting them into this source while operating, then FPL shall demonstrate to the Department that such disposal does not result in an increase in the actual rate of particulate matter emissions. The demonstration shall be conducted pursuant to the requirements of 40 CFR 60.14(b)(2) and 40 CFR 60 Appendix C. At least three valid test runs must be conducted before disposal of spent boiler cleaning chemicals, and at least three during disposal of spent boiler cleaning chemicals at the maximum disposal rate. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.

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10rida Power & Light Company
P.O. Box 088801
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Permit No: A041-219341

County: Manatee

Expiration Date: 11/14/97
Project: Manatee Power Plant

Unit No. 2

(15) Other Requirements - Rule 17-2.210, F.A.C.

Issuance of this permit does not relieve FPL from complying with applicable emission limiting standards or other requirements of Chapter 17-2, or any other requirements under federal, state, or local law. Future regulations may impact this facility at some future date. FPL shall comply with any applicable future regulations when they become effective.

(16) Operation Permit Renewal - Rules 17-4.050(2) and 17-4.090(1), F.A.C.

Three applications to renew this operating permit shall be submitted to the Department of Environmental Regulation, and one application shall be submitted to the Manatee County Environmental Action Commission, by October 14, 1997 (60 days prior to the expiration date of this permit).

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

Dr. Richard D. Garrity

Director of District Management

3804 Coconut Palm Drive / Tampa, Florida 33619-8318

Phone (813) 744-6100

norida Power & Light Company

Page 3

16

attachment

copy to: Rob Baum - Manatee County E.A.C.

CERTIFICATE OF SERVICE

1. 100 A 100 A

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed by certified mail before the close of business on NOV 0 6 1992 to the listed persons.

P 079 942 802

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL

(See Reverse)

MR C D HENDERSON
MGR AIR & WATER PROG
FLORIDA POWER & LIGHT
PO BOX 088801
NORTH PALM BEACH FL 33408

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

Marlyn Quishe NOV 0 6 1992

ENDER	
Complete items, 1 and/or, 2 for additional services. Complete items 3, and 4a & b. Print your name and address on the reverse of this form so unif this card to you.	I also wish to receive the following services (for an extra fee):
Attach this form to the front of the mailpiece, or on the bac es not permit. Write "Return Receipt Requested," on the mailpiece below the a	k if space Addressee's Address
and the date of delices will provide you the signature of the pe	rson delivered 2. Li nestricted Delivery
C. APIOLO Add-co	Consult postmaster for fee. 2 4a. Article Number
	A = A + A + A + A + A + A + A + A + A +
R C D HENDERSON	4b. Service Type
GR AIR & WATER PROG	Registered Insured
LORIDA POWER & LIGHT	Certified COD
O BOX 088801	Express Mail Return Receipt for
ORTH PALM BEACH FL 33408	7. Date of Delivery
Signature (Addressee)	8. Addressee's Address (Only if requested and fee is paid)
ignature (Agent)	
orm 3811, November 1990 ± U.S. GPO: 1991-287	7-066 DOMESTIC RETURN RECEIPT