



March 27, 1998

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BUREAU OF
AIR REGULATION

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: Sanford Power Plant
Notice of Intent to Issue Proposed
Permit No. 1270009-001-AV - Draft**

Dear Mr. Beason:

On October 8, 1997, Florida Power and Light Company (FPL) received the referenced Notice of Intent to Issue Proposed Permit for its Sanford Power Plant located in Volusia County, Florida. The Notice of Intent was issued by the Department's Tallahassee Office and was signed by Martin J. Costello, P.E., of the DEP Bureau of Air Regulation.

FPL has been working in good faith with the Department to identify and resolve outstanding permit issues regarding the referenced facility. 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 April 30, 1998, in which to file a petition for administrative proceedings regarding the Notice of Intent to Issue the Proposed Air Construction and Air Operating permits. FPL has filed public notice of the Notice of Intent to Issue the Permits as required. As good cause for granting the requests for extension of time for filing, FPL states the following:

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. FPL is committed to amicably resolving all outstanding issues related to this permit issuance so that the Department's Title V program objectives may be met.

I hereby certify that I have contacted Mr. Scott Sheplak, P.E., regarding this request, and he is amenable to an extension and is waiting for contact from your office.

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Accordingly, I hereby request that you formally extend the time for filing of a petition for administrative proceedings to and including April 30, 1998.

Sincerely,



Mary Archer
Senior Environmental Specialist
FLORIDA POWER & LIGHT COMPANY

cc: Scott Sheplake, P. E., Tallahassee DEP

3/30/98 cc: Scott Sheplak
Martin Castello



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**BUREAU OF
AIR REGULATION**

March 25, 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: Draft Permit No. 1270009-001-AV
FPL Sanford Plant Initial Title V Permit

Dear Mr. Sheplak:

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

Section I - Facility Information

Page 2: **Subsection A. Facility Description:** The facility description contains a number of inaccuracies, FPL request this item be rewritten as follows:

*This facility contains three fossil fuel steam generators: Unit 3 a Babcock & Wilcox wall fired boiler with a generator nameplate rating of 156 megawatts (MW), and Units 4 & 5, each are Foster Wheeler wall fired boilers with generator nameplate ratings of 490 MW (limited to 436 MW by boiler steam capacity). The steam generators each burn natural gas, No. 6 fuel oil, No. 2 fuel oil, used oil from FPL operations, and orimulsion (**pending - see orimulsion conditions**). Air pollutants are discharged through a 302 foot stack on Unit 3 and 400 foot stacks on each of Units 4 & 5. Unit 3 has a flue gas recirculation to improve unit performance and efficiency. Units 4 & 5 have multicyclone dust collectors and eight hoppers on each unit. Each boiler operates a Westinghouse tandem compound, reheat type extraction turbine. Each boiler has an automated fuel additive system to aid in removal of boiler tube deposits. The building remains which housed Units 1 & 2. The boilers have been removed from the site. There is an emergency diesel generator and 10 pre NSPS fuel oil storage tanks ranging in size from 275 gallons to 268,000 barrels. There are two propane tanks on site.*

Section III - Essential Potential to Emit Parameters

Page 6: Specific Condition A.1. **Permitted Capacity:** The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. We request a note be added to the permitted capacity condition for clarifying this, and an explanation that regular record keeping is not required for heat input be added to the statement of basis. The following specific changes are requested:

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Add to the statement of basis for each permit:

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

Add to the permit below the condition titled Permitted Capacity:

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

Page 6: Specific Condition A.3.a. - Startup: The only fuels allowed to be burned in the startup process are propane, natural gas or No. 2 fuel oil for the ignition cycle followed by any combination(s) of natural gas, No. 2 fuel oil or No. 6 fuel oil. During the startup process best operating practices are utilized to minimize emissions.

Page 6: Specific Condition A.3.b. - Normal: The only fuels allowed to be burned are any combination of natural gas, No. 2 fuel oil, No. 6 fuel oil and/or on-specification used oil from FPL operations.

Page 7: Specific Condition A.5. - The language in this specific condition appears to have been taken from the Administrative Orders allowing for 40% opacity and annual testing. We suggest the following language derived from previously issued Title V permits:

Visible emissions shall not exceed 40 percent opacity. Emissions units governed by this visible emission standard shall conduct compliance tests for particulate matter emissions at least annually, in accordance with Specific Condition A.27. [Rule 62-296.405(1)(a), F.A.C.; OGC Case 92-0890 (Unit 3), OGC Case 85-1420 (Unit 5), OGC Case 89-1454 (Unit 4).]

Page 7: Specific Condition A.6.(c) - The facility does not have a distributed control system, and therefore does not have the capability to automatically record the data requested. The facility can manually record data.

Page 8: Specific Condition A.14. - We request this specific condition be modified to reflect the following. FPL shall perform the annual testing during the fiscal year (October 1 - September 30), with not less than 90 days between the successive tests.

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After reviewing historical particulate matter emissions data for plants addressed by EPA, the Department believes that a demonstration is appropriate, based on that data, to support each permit's annual PM testing frequency. This facility is 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 average test results, with sources with historical emissions less than half the standard required to test

to 0.349 lb/mmBtu. We proposed evaluating the required PM testing frequency based on the historical annually, sources with historical emissions less than three quarters of the standard required to test semi-annually, and the remaining sources required to test quarterly. FPL has presented historical PM test results which show that the steady-state and soot blowing average results are less than half the applicable effective standards. The statement of basis for these permits will be revised to include a demonstration supporting an annual testing frequency, specifically referring to the low historical emission rate in relation to the effective standards for steady-state operation and soot-blowing operation. The following specific changes will be made:

Add to the statement of basis for this 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 Sanford are 0.063 (steady-state) and 0.084 (soot-blowing).

Page 8: Specific Condition A.15. - The Department has not utilized all of the language that we agreed upon in the negotiations for the Cape Canaveral permit, and has instead attempted to use other language in Specific Condition 23. FPL negotiated the language in good faith as the settlement of the Petition For Administrative Hearing on the Cape Canaveral plant (which carries forward to this plant and several others). Accordingly, we request that the following language should be inserted in this specific condition:

b. In the event that the CEMs becomes temporarily inoperable or interrupted, the fuel oil sulfur concentration and the maximum fuel oil to natural gas firing ratio that shall be used is limited to that which was last used to demonstrate compliance prior to the loss of the CEMs, or the emission units shall fuel switch and be fired with a fuel oil containing a maximum sulfur content of 2.5%, by weight, or less.

Page 9: Specific Condition A.17.3.b. and 3.c. - We understand from our conversation on March 20, 1998, that Specific Conditions A.17.3.b. and 3.c. will be stricken.

Page 11: Specific Condition A.23. - The Department has inserted language in this condition that is inconsistent with the language agreed upon in the Cape Canaveral negotiations (please see our comment on specific condition A.15., above). FPL negotiated the conditions at Cape Canaveral with the understanding that they would carry forward into several other permits,

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including Sanford's. Accordingly, we request that the proposed language be stricken and that the analogous condition in the Cape Canaveral permit relating to Sulfur Dioxide be inserted herein as follows:

The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedences of the sulfur dioxide emissions limiting standard are occurring. The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, the permittee elected to demonstrate compliance using CEMS for sulfur dioxide. See specific condition A.15 of this permit.

[Rules 62-213.440 and 62-296.405(1)(c)3. and (1)(e)3., F.A.C.; proposed by applicant 09/18/97]

Page 13: Specific Condition A.27.b. - As above, the Department has utilized language in this specific condition that is inconsistent with the agreed-upon language from the Cape Canaveral negotiations in settlement of FPL's Petition for Administrative Hearing. Accordingly, we respectfully request that the Department honor the agreement, and use the agreed-upon language as follows:

Operating Conditions During Testing - Particulate Matter and Visible Emissions. Compliance testing during soot blowing and steady-state operation for particulate matter and visible emissions shall be conducted at least once annually, if liquid fuel is fired for more than 400 hours. A visible emissions test shall be conducted during one run of each particulate matter test. Testing shall be conducted as follows:

a. When Burning Fuel Oil Up To 2.5% Sulfur. When only fuel oil containing less than or equal to 2.5% sulfur, by weight, is fired (or co-fired with natural gas) in an emissions unit, particulate matter and visible emissions tests during soot blowing and steady-state operation shall be performed on such emissions unit while firing solely fuel oil containing at least 90% of the average sulfur content of the fuel oils fired in the previous 12 month period, except that such test shall not be required to be performed during any year that testing is performed in accordance with specific conditions A.27.b.

b. When Burning Fuel Oil Greater Than 2.5% Sulfur. If fuel oil containing greater than 2.5% sulfur, by weight, is co-fired with natural gas in an emissions unit, particulate matter and visible emissions tests during soot blowing and steady-state operation shall be performed as soon as practicable, but in no event more than 60 days after firing such fuel oil, while co-firing such oil with the appropriate proportion of natural gas required to maintain SO₂ emissions between 90 to 100% of the SO₂ emission limit (corresponding to 2.475 and 2.75 lb/mmBtu, respectively). Following successful completion of such particulate matter and visible emissions

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testing, further particulate matter and visible emissions testing shall not be required during the remaining federal fiscal year unless fuel oil is fired that contains greater than 0.2% sulfur above the percentage sulfur concentration fired during the most recent co-firing test. If fuel oil is co-fired containing greater than 0.20% sulfur above the percentage sulfur concentration fired during the most recent co-firing test, additional particulate matter and visible emissions tests shall be performed as described above as soon as practicable, but in no event more than 60 days after firing such higher sulfur fuel oil. If any additional particulate matter and visible emissions tests are imposed after completion of any required annual compliance tests, then the frequency testing base date shall be reset to 12-months after the date of completion of the last tests.

[Rules 62-4.070(3), 62-213.440, 62-296.405(1)(c)3. and 62-297.310(7)(a)9., F.A.C.]

Page 13: Specific Condition A.27.c. Fuel Records: The last sentence in this paragraph should read as follows striking daily & replacing it with monthly. "Comparison of the monthly as-fired fuel oil sulfur content shall be made with that of the most recent PM and VE compliance test, and recorded monthly upon receipt of each monthly composite analysis."

Page 16: Specific Condition A.34. - FPL understands that this specific condition is meant to provide the Department with notification of excess emission events associated with SO2 emissions. We do not expect to ever need to report an excess emission event, and therefore request the following sentence be added to the end of the specific condition:

In the event that no 3-hour rolling average periods of sulfur dioxide emission exceed the limit of 2.75 lb/mmBtu, no report is required to be submitted to the DEP Central District Office.

Page 19: Comments, notes and justifications: Please note that The legal Designated Representative was changed from William M. Reichel to David W. Knutson by legal notice published on February 12-17, 1997.

Page E1(of 1) In previously issued permits this appendix was deleted and replaced with Appendix I which listed Insignificant emissions/activities. We request that be done for this permit and add an Appendix I comparable to the one attached.

Page U1 (of 1) Please add bead (glass) blasting to the list of unregulated emissions/activities.

Page S3 (of 3) The emissions units descriptions are incorrect. Also, please delete the test date for annual compliance testing. A copy of the Table is attached with marked changes.

Orimulsion Fuel Type

A special issue we have addressed with the Department concerned orimulsion as a fuel type for Sanford plant. We request a conference call to discuss the specific Department concerns, so, we can adequately provide documentation to support the legality of the current air operating permit. With the confirmation that the current permit is indeed legal, we request the orimulsion conditions be added to the Title V permit for the Sanford Plant.

Orimulsion is a permitted fuel for the site with specific conditions, as listed in Air Operating Permit AO64-217877. We understand the sensitivity of the issue and request an inclusion of the orimulsion specific conditions in the Title V permit for the Sanford Plant under the following condition. Upon approval of the use of orimulsion as a fuel for any facility in the State of Florida the Sanford conditions become effective and the Plant can burn orimulsion as a fuel. Suggested additions for orimulsion are as stated in the current Air Operating Permit with the exception of the addition of Emissions Unit (E.U.) 003 which is identical to E.U. 002. Please see the following recommended additions:

Essential Potential to Emit (PTE) Parameters

A.1.a. Permitted Capacity. The maximum heat input rates for orimulsion.

E.U. ID No.	mmBtu/hr Heat Input	Fuel Type
002	4050	orimulsion
003	4050	orimulsion

Orimulsion may be co-fired with natural gas, or with natural gas and No. 6 residual oil. When orimulsion is fired with natural gas the maximum permitted portion of the orimulsion is 41.2%. When orimulsion is co-fired with natural gas and fuel oil the maximum permitted portion is 20.6% orimulsion and 50% fuel oil. Percentages are expressed as heat input.

A.3.b. Include orimulsion as a fuel.

Emissions Limitations and Standards

A.5.a. Visible Emissions (VE). When orimulsion is co-fired the emissions limit will be 35% for steady state operations with a quarterly particulate matter and VE compliance test; or to test particulate matter and VE compliance test annually with a 20% opacity limit.

A.6.a. Visible Emissions (VE) - Soot Blowing and Load Change. When burning orimulsion visible emissions shall adhere to the limitations addressed in A.6. of this permit.

A.7.a. & A.8.a. Particulate Matter. When burning orimulsion particulate matter emissions shall adhere to the limitations addressed in A.7. & A.8. of this permit.

A.9.a. Sulfur Dioxide. Sulfur Dioxide emissions shall not exceed 1.6 pounds per million Btu heat input while co-firing orimulsion, as measured by applicable compliance measures.

[Rule 62-296.405(1)(c)1.,j.,F.A.C.]

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Monitoring of Operations

A.14.a. Tests Required. Within 30 days of the initial co-firing of orimulsion, and at yearly or quarterly intervals thereafter, particulate tests shall be conducted while firing within 90 to 100% of the maximum permitted co-firing heat input rate of 4050 mmBtu/hour and at the maximum permitted heat input of 41.2% orimulsion and 58.8% natural gas.

Test Methods and Procedures

A.23.a Sulfur Dioxide during Orimulsion Co-firing. Compliance shall be based on a CEMs system containing a SO2 stack gas analyzer. The emission rate shall be calculated as a 3 hour rolling average. The sulfur dioxide limit shall apply at all times including startup, shut down, and malfunction.

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

Attachments (2)

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

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, are exempt from the permitting requirements of Chapters 62-210 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rule 62-210.300(3)(a), F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rule 62.210.300(3)(a), F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

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

	<u>Brief Description of Emissions Units and/or Activities</u>
1	Gas metering area relief valves
2	Hydrazine mixing tank and relief valves
3	Fuel oil storage tanks and related equipment
4	Lube oil tank vents and extraction vents
5	Oil/water separators and related equipment
6	Evaporation of Boiler Chemical Cleaning Waste

Appendix S
Permit Summary Tables

Table 2-1, Summary of Compliance Requirements

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

Emissions Unit	Brief Description						
001	Fossil Fuel Steam Generator, Unit 1 3						
002	Fossil Fuel Steam Generator, Unit 2 4						
003	" " " " " 5						
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	CEMS along with Method 19 or fuel sampling & analysis and a fuel sulfur limit of 2.5%, or Method 6C if required by the Department	fuel sampling of the delivered fuel upon each shipment, Condition A.27 may require additional fuel sampling for PM/VE testing purposes.	Not Applicable	three hour averages when using CEMS or one hour runs for Method 6C stack tests	Yes	A.9, A.13, A.15, A.23 & A.24
NO _x						Yes	A.13
PM	Oil	Method 5 or Method 17	Annual	August 1	1 hour	No	A.22, A.26 & A.27
VE	Oil	DEP Method 9	Annual	August 1	1 hour (annual test, concurrent with PM) 12 minutes (M9 at other times)	Yes	A.20, A.18, A.21 & A.27
On-spec. Used Oil		Record Keeping and Analysis	batch testing of representative sample				A.35

Notes: ¹ Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.

² CMS = continuous monitoring system

→ Refer to Specific cond. 14