



**FPL**

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

*Scott Sheplak*

-002

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**JUL 29 1998**

**BUREAU OF  
AIR REGULATION**

July 24, 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. 01100036-001-AV**  
**FPL Port Everglades Final Title V Permit**

Dear Mr. Sheplak:

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

Page 7 of 28 Specific Condition A.1. and page 12 of 28 Specific Condition B.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:

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 10 of 28 Specific Condition A.15. and page 15 of 28 specific Condition B.15. Operating Conditions During Testing – PM and VE. The Port Everglades Plant current Air operating Permit as well as Specific Condition A.8 and B.8. of this permit state the Sulfur Dioxide emissions shall not exceed 2.75 pounds per million Btu heat input. Therefore all language that references 1% sulfur and 1.1 lb/mmBtu should be removed. Accordingly, we request the following changes to the 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 100% Fuel Oil. Particulate matter and visible emissions tests during sootblowing and steady-state operation shall be performed on such emissions unit while firing solely fuel oil less than or equal to 2.5% sulfur by weight, except that such testing is performed in accordance with specific condition A.15.b. (B.15.b.)

b. When Burning Fuel Oil While Co-Firing With Natural Gas. Particulate matter and visible emissions tests during sootblowing and steady-state operation shall be performed on such emissions units while co-firing with the appropriate proportion of natural gas required to maintain SO<sub>2</sub> emissions below 2.75 lb/mmBtu.

Tests Required if SO<sub>2</sub> emission rate increased. Particulate matter testing is required within 60 days if the equivalent sulfur content of oil burned is increased by 0.5 percentage points or more than that used during the previous PM test.

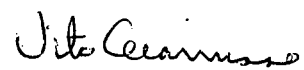
[Rules 62-4.070(3), 62-213.440, 62-296.405(1)(c)3. and 62-297.310(7)(a)9., F.A.C.]

(The "Note" should be removed from this section. EPA stated that any reference to an informal agreement with the county or anyone else, had no place in the actual permit, and with the SO<sub>2</sub> compliance limits corrected there's no longer a need for this explanation.)

Page 10 of 28 Specific Condition A.16. and page 15 of 28 Specific Condition B.16. Recordkeeping and Reporting Requirements. Specific condition A.13.a. and B.13.a. specifies Sulfur Dioxide compliance shall be demonstrated on a 3-hour rolling average using CEMS. Therefore this section should reflect the same compliance method. The use of CEMS as the compliance method was agreed upon this past March in a meeting with FDEP, EPA and FPL.

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

Sincerely,

A handwritten signature in cursive script that reads "Vito Giarrusso".

Vito Giarrusso  
Sr. Environmental Specialist  
Florida Power & Light Company

emissions limiting standard are occurring. The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, **the permittee shall demonstrate compliance using CEMS for sulfur dioxide. See specific condition A.11 of this permit.**

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

**A.15. Operating Conditions During Testing - PM and VE.** Compliance testing during sootblowing and steady-state operation for particulate matter and visible emissions shall be conducted at least once annually, if liquid fuel is fired for more than 400 hours. A visible emissions test shall be conducted during one run of each particulate matter test. The owner or operator shall conduct testing while operating under one of the following methods of operation (representative of normal operation to achieve the facility's target SO<sub>2</sub> emission rate of 1.1 lb/mmBtu):

- a. **When Burning 100% Fuel Oil.** Particulate matter and visible emissions tests during sootblowing and steady-state operation shall be performed on such emissions unit while firing solely fuel oil of approximately 1% sulfur by weight (stoichiometrically representative of sulfur dioxide emissions of the target SO<sub>2</sub> emission rate of 1.1 lb/mmBtu), except that such test shall not be required to be performed during any year that testing is performed in accordance with specific condition **A.15.b.**
- b. **When Burning Fuel Oil While Co-firing With Natural Gas.** Particulate matter and visible emissions tests during sootblowing and steady-state operation shall be performed on such emissions unit while co-firing oil with the appropriate proportion of natural gas required to maintain SO<sub>2</sub> emissions between 90 to 100% of the target SO<sub>2</sub> emission rate of 1.1 lb/mmBtu heat input (corresponding to 1.0 and 1.1 lb/mmBtu heat input).

**Test Required if Target SO<sub>2</sub> Emission Rate Increased.** If the owner or operator target increases the target SO<sub>2</sub> emission rate above 1.1 lb/mmBtu, testing while operating under one of the above methods of operation that is representative of the new target SO<sub>2</sub> emission rate shall be conducted within 60 days of increasing the target rate.

{Note: The facility is operated under an informal agreement with Broward County to limit visible emissions to less than 20% opacity, to the extent possible. To achieve this, the facility voluntarily limits sulfur dioxide emissions to 1.1 lb/mmBtu by either firing fuel oil with up to 1% sulfur content, or by co-firing fuel oil and natural gas in a ratio to limit sulfur dioxide emissions to 1.1 lb/mmBtu.}

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

### **Record Keeping and Reporting Requirements**

**A.16. Fuel Records.** The owner or operator shall create and maintain for each emission unit hourly records of the amount of each fuel fired, the ratio of fuel oil to natural gas if co-fired, and the heating value and sulfur content of each fuel fired. These records must be of sufficient detail to identify the testing requirements of specific condition **A.15**, and, when applicable, demonstrate compliance with the requirements of condition **A.11**, paragraphs b and c, of this permit. Fuel oil heating value and sulfur content shall be determined by taking a daily sample of the fuel fired, combining those samples into a monthly composite, and analyzing a representative sample of the composite. Analysis for sulfur content shall be performed using one of ASTM D2622-94, ASTM D4294-90(95), ASTM D1552-95, ASTM D1266-91, both ASTM D4057-88 and ASTM D129-95, or the latest edition(s). Comparison of the as-fired fuel oil sulfur content shall be made and recorded monthly upon receipt of each monthly composite analysis.

[Rules 62-4.070(3), 62-213.410, 62-213.440 and 62-296.405(1)(c)3., F.A.C.]

**B.15. Operating Conditions During Testing - PM and VE.** Compliance testing during sootblowing and steady-state operation for particulate matter and visible emissions shall be conducted at least once annually, if liquid fuel is fired for more than 400 hours. A visible emissions test shall be conducted during one run of each particulate matter test. The owner or operator shall conduct testing while operating under one of the following methods of operation (representative of normal operation to achieve the facility's target SO<sub>2</sub> emission rate of 1.1 lb/mmBtu):

- a. When Burning 100% Fuel Oil. Particulate matter and visible emissions tests during sootblowing and steady-state operation shall be performed on such emissions unit while firing solely fuel oil of approximately 1% sulfur by weight (stoichiometrically representative of sulfur dioxide emissions of the target SO<sub>2</sub> emission rate of 1.1 lb/mmBtu), except that such test shall not be required to be performed during any year that testing is performed in accordance with specific condition **B.15.b.**
- b. When Burning Fuel Oil While Co-firing With Natural Gas. Particulate matter and visible emissions tests during sootblowing and steady-state operation shall be performed on such emissions unit while co-firing oil with the appropriate proportion of natural gas required to maintain SO<sub>2</sub> emissions between 90 to 100% of the target SO<sub>2</sub> emission rate of 1.1 lb/mmBtu heat input (corresponding to 1.0 and 1.1 lb/mmBtu heat input).

Test Required if Target SO<sub>2</sub> Emission Rate Increased. If the owner or operator target increases the target SO<sub>2</sub> emission rate above 1.1 lb/mmBtu, testing while operating under one of the above methods of operation that is representative of the new target SO<sub>2</sub> emission rate shall be conducted within 60 days of increasing the target rate.

{Note: The facility is operated under an informal agreement with Broward County to limit visible emissions to less than 20% opacity, to the extent possible. To achieve this, the facility voluntarily limits sulfur dioxide emissions to 1.1 lb/mmBtu by either firing fuel oil with up to 1% sulfur content, or by co-firing fuel oil and natural gas in a ratio to limit sulfur dioxide emissions to 1.1 lb/mmBtu.}

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

### **Record Keeping and Reporting Requirements**

**B.16. Fuel Records.** The owner or operator shall create and maintain for each emission unit hourly records of the amount of each fuel fired, the ratio of fuel oil to natural gas if co-fired, and the heating value and sulfur content of each fuel fired. These records must be of sufficient detail to identify the testing requirements of specific condition **B.15**, and, when applicable, demonstrate compliance with the requirements of condition **B.11**, paragraphs b and c, of this permit. Fuel oil heating value and sulfur content shall be determined by taking a daily sample of the fuel fired, combining those samples into a monthly composite, and analyzing a representative sample of the composite. Analysis for sulfur content shall be performed using one of ASTM D2622-94, ASTM D4294-90(95), ASTM D1552-95, ASTM D1266-91, both ASTM D4057-88 and ASTM D129-95, or the latest edition(s). Comparison of the as-fired fuel oil sulfur content shall be made and recorded monthly upon receipt of each monthly composite analysis.  
[Rules 62-4.070(3), 62-213.410, 62-213.440 and 62-296.405(1)(c)3., F.A.C.]

**B.17. 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

bcc:

R. Sanchez

R. Adams

S. Busa

M. Archer

V. Giarrusso

PPE/PPE

GPA/JB

GPA/JB

JES/JB

JES/JB