



Department of Environmental Protection

File

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

September 29, 1998

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

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

Dear Mr. Giarrusso:

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

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

Sincerely,

Scott M. Sheplak, P.E.

Administrator
Title V Section

cc: Michael Harley



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BUREAU OF
AIR REGULATION

July 22, 1998

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

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

Dear Mr. Sheplak:

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

Page 8 Specific Condition A.3. Permitted Capacity. The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. We request a note be added to the permitted capacity condition for clarifying this, and an explanation that regular record keeping is not required for heat input be added to the statement of basis. The following specific changes are requested:

Add to the statement of basis for each permit:

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

Add to the permit below the condition titled Permitted Capacity:

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

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

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

Sincerely,



Vito Giarrusso
Sr. Environmental Specialist
Florida Power & Light Company

7/28/98 cc: Scott Sheplek
Tom Caseio

bcc:

R. Sanchez

R. Adams

S. Busa

M. Archer

V. Giarrusso

PPE/PPE

GPA/JB

GPA/JB

JES/JB

JES/JB



February 11, 1998

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

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

Dear ^{Scott} ~~Mr. Sheplak~~:

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

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

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

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

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

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

The facility is supplied by pipeline quality natural gas, which does have an "F" value equal to 0, which equates to a standard of about 106 ppmvd @15% O₂. The BACT emission limitation for the Lauderdale units is 264 lb / hr / CT at 75°F, based on a concentration of 42 ppmvd (PSD permit #PSD-FL-145). Since the limitations set by the BACT are much more stringent than those in 40 CFR 60 subpart GG, FPL considers the BACT limitations as the standard for the Lauderdale plant.

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

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

- *Each NO_x CEMs must be capable of calculating NO_x emissions concentrations corrected to 15% O₂ and ISO conditions.*

Since the BACT limits are expressed lb/hr/CT at 75°F, FPL believes the CEMS should be required to calculate emissions in this format. FPL intends to demonstrate compliance based on lb/hr/CT at 75°F. While NO_x ppm @ 15% O₂ and ISO conditions was originally used to derive the lb/hr standard, it is not used in the calculation. Since we will be measuring lb/hr directly, we do not believe there is any value in adding the equipment necessary for this display on a continuous basis.

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

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

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

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

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

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

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

No problem.

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

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

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

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

Very truly yours,

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

Rich Piper
Sr. Environmental Specialist
Florida Power & Light Company