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JAN 27 1998

**BUREAU OF
AIR REGULATION**

January 26, 1998

Mr. Bruce Mitchell
Bureau of Air Regulation
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Mitchell:

Re: Florida Power Corporation, Suwannee River Facility
Draft Title V Permit No. 1210003-001-AV

This letter serves to provide additional information relating to a comment in a letter from Florida Power Corporation (FPC) to the Department, dated November 5, 1997. Specifically, in the Draft Title V permit (Section III, Subsection A, Conditions A.1 and A.11), FPC had requested that the fuel sulfur limit for Unit 3 be returned to 2.5 percent, the limit currently imposed on Units 1 and 2. Recall that FPC voluntarily accepted the 1.0 percent limit by letter, dated July 5, 1978 (attached) in order to meet the opacity standard. FPC reserved the right to return to using higher sulfur fuel oil if modifications were made that would cause the unit to meet the opacity standard. This letter is in response to your request for information on the changes made to Unit 3 that now enable it to meet applicable opacity standards without the use of low sulfur fuel oil.

The current permit language allows for the use of 2.5 percent sulfur fuel oil up to approximately 50 percent of full load and natural gas to supplement the demand for firing levels above 50 percent. Alternatively, the unit may burn 1.0 percent sulfur fuel oil up to full load. As evidenced by the attached interoffice memorandum, dated March 13, 1978, FPC was never convinced that the use of low sulfur fuel oil was the remedy for high opacity levels, especially at low loads; however, even though results were inconclusive, the Department's Jacksonville office was insistent on such a course of action. FPC has been burning the higher sulfur fuel oil in Unit 3 at lower loads with no opacity problems. This is significant because opacity problems are just as likely to be experienced at low loads as at high loads. This has been further confirmed consistently by the use of the continuous opacity monitor (COM).

The following is a list of actions taken to insure both lower opacity and best operating practices:

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1. Plant management maintains all fuel oil firing devices in good working order.
2. The combustion air diffusers and dampers were inspected and repaired.
3. Fuel and combustion training were conducted for operators (40 hour course).
4. Chief operators were sent to smoke school to insure complete emissions understanding.
5. Testing conducted to insure optimum excess air and oil viscosity resulted in the oil temperature range being increased from 215-220°F to 235-240°F.

FPC is now confident that all applicable standards can be met on the higher sulfur fuel oil and requests that the associated permit change be made. If you should have any questions or require additional information, please do not hesitate to contact me at (813) 866-5158.

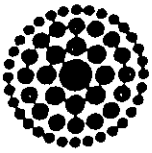
Sincerely,



Scott H. Osbourn
Senior Environmental Engineer

Attachments

cc: Clair Fancy, P.E., DEP
Ken Kosky, P.E., Golder Associates
Robert Manning, HGS&S



**Florida
Power**
CORPORATION

INTEROFFICE CORRESPONDENCE

Production
(OFFICE)

C-4
(MAIL CODE)

SUBJECT: Low Sulfur Oil Test
Suwannee No. 3

TO: W. P. Stewart

DATE: March 13, 1978

The subject test was conducted on Friday, March 10. The DER was represented by Dr. S. K. Nayak and three people from the Jacksonville office. W. A. Swyers, D. A. Shantz and myself were also present.

A solid cloud cover prevented any determination of opacity. There was no apparent change in the appearance of the plume during the time the 1% sulfur oil was being burned. Evidently only the particulate component of the plume was visible due to the cloud cover.

Dr. Nayak was insistent that low sulfur oil would solve the opacity problem and that if we could see the color of the plume it would be improved. He was asked to provide us with a letter to that effect, but he said that according to his internal departmental regulations he could not provide such assurance in writing, but he again asserted that low sulfur oil was "one possible solution for the problem." He also suggested that we might want to change the burners or the furnace configuration to solve the problem. He dismissed the possibility that the excess opacity of the plume was due to water vapor from steam atomization of the fuel oil. He said that a water vapor plume would dissipate in a much shorter distance than what he has seen at Suwannee.

Dr. Nayak told us that he had heard from EPA just prior to leaving his office the previous day that a letter was being prepared on Suwannee No. 3. It was not clear to me when this letter would be mailed, but it was my impression that it would be within the next few days.

After having observed the Anclote plume at lower loads with higher than normal excess air, I do not believe that low sulfur oil will reduce the plume from Suwannee No. 3 to less than 20% opacity, especially at lower loads.

J. B. Clardy
J. B. Clardy
JBC:mf

cc: J. Alberdi
D. A. Shantz
E. M. Haywood
File: ENVIRON 5-1

THIS COPY FOR

**Florida
Power**

July 5, 1978

Mr. Frank Watkins, Jr., P.E.
Florida Department of Environmental Regulation
3426 Bills Road
Jacksonville, Florida 32207

Subject: Suwannee County - AP No. A061-10282
Florida Power Corporation
Power Unit No. 3

Dear Mr. Watkins:

The following corrections are requested in the subject permit:

1. On the permit, change the wording Maximum Heat Input Rate of "750 MMBTU/Hr." to 880 MMBTU/Hr.
2. Operating Permit Condition #9.B., delete the words "Four guns on" and "five guns on".

Concerning the maximum heat input rate please be advised that the maximum unit load is 83 MW with a fuel input of 141 barrels of oil per hour. During 1977 the average heat content per barrel was 6,236,675 BTU. Multiplying the barrels per hour by the heat content gives 879.37 MMBTU/Hr.

Concerning permit condition #9.B. the request to delete the number of guns is made because at reduced loads the normal practice is to reduce the number of guns used to inject fuel. The percentage of fuel oil and gas would remain constant but the number of guns used will vary. The changes in heat input is noted to correspond to the corrected maximum heat input rate.

Also, please be advised that Florida Power Corporation accepts the low sulfur fuel oil and oil/gas combination fuel requirements of this permit as an expedient method of meeting the opacity standard of CH 17-2.04(6)(e)2.(b).

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July 5, 1978
Mr. Frank Watkins, Jr., P.E.

Florida Power Corporation reserves the right to use a higher sulfur fuel oil if modifications are made which will cause Unit #3 to meet the opacity standard and other emission standards are also met.

The Department of Environmental Regulation will be informed of any effort to meet the opacity standard by modifications to Unit #3.

Should there be any questions concerning these requests please contact me by telephone at 813/866-4544.

Very truly yours,



R. E. Parnelle, P.E.
Manager
Environmental Operations

REP/bz

Attachments

bc: Mr. W. P. Stewart
Mr. W. S. O'Brien
Mr. J. Alberdi
Mr. D. A. Shantz
Ms. P. Y. Baynard
Mr. Ed. Haywood
Mr. J. B. Clardy



November 5, 1997

Mr. Scott M. Sheplak, P.E.
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Florida Power Corporation, Suwannee River Facility
DRAFT Title V Permit No. 1210003-001-AV

Dear Mr. Sheplak:

On behalf of Florida Power Corporation (FPC), attached are comments regarding the DRAFT Title V permit for the Suwannee River Facility as identified above. FPC appreciates the Department's efforts in processing this permit and understands the need to resolve these issues in as timely a manner as possible. In this regard, DEP agreed to grant FPC's Request for Extension of Time until December 8, 1997. If we are unable to reach a resolution of these comments within this time period, we would appreciate the opportunity to file an additional Request for Extension of Time. Accordingly, please contact me at (813) 866-5158 as soon as you have had a chance to review these comments to set up either a telephone or in-person conference. Thank you again for your consideration of our comments.

Sincerely,

Scott H. Osbourn,
Senior Environmental Engineer

cc: Clair Fancy, P.E., DEP
Charles Logan, DEP
Ken Kosky, P.E., Golder Associates
Robert Manning, HGS&S

11/12/97 cc: Scott Sheplak
Bruce Mitchell

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BUREAU OF
AIR REGULATION

**FLORIDA POWER CORPORATION
COMMENTS ON DRAFT TITLE V PERMIT
SUWANNEE RIVER FACILITY**

General Comments

1. FPC understands that Appendix TV-1, Title V Conditions, is expected to be revised within the next few weeks. FPC requests that its Title V permit reflect the most up-to-date version of this Appendix.

2. FPC understands that DEP will publish the Intent to Issue Title V Air Operation Permit. Because the applicant is ultimately responsible for the publication of the Intent to Issue, FPC requests that DEP provide a copy of the Notice intended to be published, as well as proof of publication.

Section I., Facility Information, Subsection A.

1. FPC requests the following revisions to the description to reference FPC's authorization at Suwannee River to burn used-oil: "Boilers Nos. 1, 2, and 3 fire natural gas, No. 6 fuel oil, and/or on-specification used oil, with No. 2 fuel oil used as an ignitor pilot-fuel-for-startup, ~~shutdown, and malfunctions.~~

Section II., Facility-wide Conditions.

1. Condition 2. The word "not" was apparently inadvertently added, and should be deleted from, the second line of this Condition.

2. Condition 3. For clarity and to make this Condition specific to FPC's Suwannee Plant, FPC requests that Condition 2. be edited as follows:

~~Except as otherwise provided in this permit for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause~~

Also, because the reference to Chapter 62-297 in the last sentence of Condition 2. appears to be misplaced, FPC requests Condition 2. be edited as follows: "**EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.**"

3. Condition 6. In the context of this permit, how does DEP intend to respond to EPA's comments regarding the need to change the phrase "exempt" to "insignificant"?

4. Condition 7. For clarity, FPC requests that the first sentence of this Condition be edited as follows: "**The permittee shall not allow no person to store, pump,**" Also, because this condition is not included in Florida's SIP (based on our research), and to be consistent with other permits issued by DEP, this condition should be marked as "Not Federally Enforceable."

Section III. Subsection A.

1. The correct MW ratings for units 2 and 3 are 34 MW and 84 MW, respectively.
2. Conditions A.1 and A.11. For unit 3, it is not clear why there are two separate sets of maximum heat input numbers, or how they were derived. FPC requests that the fuel sulfur limit for Unit 3 be returned to 2.5 percent, the limit currently imposed on Units 1 and 2. Recall that FPC voluntarily accepted the 1.0 percent limit by letter, dated July 5, 1978 (attached) in order to meet the opacity standard. FPC reserved the right to return to using higher sulfur fuel oil if modifications were made that would cause the unit to meet the opacity standard. FPC is now confident that all applicable standards can be met on the higher sulfur fuel oil.
3. Condition A.5. FPC requests that this Condition be deleted because there is no regulatory basis for its inclusion. The heat input limits contained in Condition A.1. are sufficient to limit the quantity of fuel being fired in these units.
4. Condition A.10. To make this Condition specific to this permit, FPC requests the following revision: "When burning liquid fuel, sulfur dioxide emissions shall not exceed 2.75 pounds per million Btu heat input, as measured ~~by applicable compliance methods~~ in accordance with Condition A.21."
5. Condition A.28. To make this Condition specific to this permit, FPC requests that subparagraph (a)4. be revised as follows: "b. ~~Each of the following pollutants, if there is an applicable standard, and SO₂ and PM, if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of these pollutants~~ any other regulated pollutant; and e. Each NESHAP pollutant, if there is an applicable standard."
6. Conditions A.31. and A.32. do not appear warranted, although they are in the AO. They contain several ambiguous phrases that, if the condition remains, should probably be clarified (e.g., "when required," "for a period of time," and "agreed upon between DEP and FPC").]
7. Condition A.37. only appears in the AO. It has no basis and should be deleted.
8. Conditions A.38. and A.39. These Conditions should be revised to reflect the record keeping and reporting requirements associated with burning used oil identical to FPC's other facilities, in accordance with the discussions between FPC and DEP on September 24, 1997.

Section III. Subsection B.

1. Condition B.7. The NO_x emission limit should be expressed as 210.2 lb/hr/CT and 157.7 TPY/CT while burning fuel oil. The basis for the limit is 75 ppmvd; 1,255,500 acfm; 726°F (AO61-189579, Specific Condition 4).
2. Condition B.12. The tons per year limit in this Condition should be deleted because it is not necessary for compliance requirements, and is not contained in the existing construction permit.

3. Conditions B.14. and B.15. These two Conditions should be deleted because the excess emissions provisions under the NSPS govern these units; the state excess emissions provisions are not applicable. Accordingly, the language from Condition B.34. should be moved to this section of the permit, and the language from 40 CFR § 60.11(c) should be added.

4. Condition B.18. This Condition is identical to Condition B.16. and should therefore be deleted.

5. Condition B.21. In accordance with FPC's letter to DEP dated September 10, 1997, FPC has requested a custom fuel monitoring schedule for these units, identical to the schedule suggested by EPA guidance. Accordingly, Condition B.21. should be deleted and FPC requests that the following language be inserted: "The permittee shall comply with the custom fuel monitoring schedule attached as Appendix M. Monitoring of the natural gas sulfur content is not required." Prior representations by EPA indicate that if the EPA guidance is used verbatim (which FPC is), then the EPA approval is automatic. EPA has also stated that they would process these approvals prior to these permits going "final." In this regard, FPC assumes that DEP forwarded the September 10 letter to EPA to initiate the approval process. If this is not the case, please let us know as soon as possible what we can do to facilitate this process.

6. Condition B.27. In accordance with DARM-EM-05, dated November 22, 1995, this Condition should be revised to indicate that compliance testing (beyond the initial test) need not be corrected to ISO conditions, and need not be conducted at four load points.

7. Condition B.28. For clarification, FPC requests that this Condition be revised as follows: "The owner or operator shall determine compliance with the nitrogen oxides and sulfur dioxide standards in 40 CFR 60.332 and 60.333(a) as follows: (3) using EPA Method 20 (40 CFR 60, Appendix A) shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations.

8. Condition B.31. A statement should be included indicating that particulate testing is not required if compliance with the opacity limit is demonstrated.

9. Condition B.35. and B.36. These two Conditions include redundant requirements. The provisions under Appendix SS-1 should be sufficient to meet the federal requirements listed in Condition B.35., and therefore Condition B.35, should be deleted.

10. Condition B.38. The language used to define the operating rate during testing should reflect recent DEP guidance incorporating the use of heat input curves.

11. Condition B.40. For clarity, the first clause in paragraph 2. of this condition ("When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method") should be deleted because the permit specifies the applicable compliance method.

12. Condition B.41. Subparagraph (a)2. should be deleted from this Condition because these units are subject to the NSPS excess emissions limitations, and therefore this provision does not apply. Also, for clarification, FPC requests the following revision to subparagraph (a)4.: a. Visible emissions, if there is an applicable standard; b. Nitrogen oxide; c. Sulfur dioxide; and d. Particulate matter. e. ~~Each NESAMP pollutant, if there is an applicable standard.~~

13. Condition B.44. This Condition should be revised as follows: "To determine compliance with the oil and natural gas firing heat input limitation in Condition B.3. . . ."

14. Condition B.53. This condition only appears in the AO. It has no basis and should be deleted.

15. Condition B.55. Indicate that the water-to-fuel ratios listed are for fuel oil.

16. Condition B.56. This Condition should be deleted because permit conditions related to water discharges are not appropriate for inclusion in a Title V Air Operation Permit.

Section IV. Acid Rain Part

1. Condition A.1.a. should reference the actual application that FPC submitted rather than DEP's form number.

2. Condition A.4. This Condition should be moved to the facility-wide section of this permit because it applies to every unit and every applicable requirement, not just to the Acid Rain requirements.

Appendix E-1, List of Exempt Emissions Units and/or Activities

1. The following activities should be included in this Appendix: (1) degreasers and non-halogenated solvent use, (2) Brazing, soldering, and welding activities, and (3) Fire protection systems.