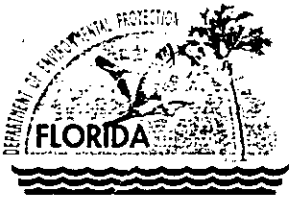


Final Determination

The draft permit amendment to conduct pollutant emissions test while firing a blend of petroleum coke and coal at Seminole Power Plant Unit No. 1 located in Palatka, Putnam County, Florida, was distributed on September 11, 1995. The Notice of Intent to Issue was published in the Palatka Daily News on September 21, 1995. Copies of the amendment were available for public inspection at the Department offices in Jacksonville and Tallahassee.

No comments were submitted by the National Park Service, U.S. Environmental Protection Agency or the public. The only comment submitted by the applicant was a change to Condition 4 of the Specific Conditions. The Department agrees with the applicant and will change Specific Condition 4 to require Seminole to take three separate as-fired samples during the particulate matter test run, but to analyze one composite (instead of three analyses) of these three samples for the parameters required by the condition.

The final action of the Department will be to issue the permit amendment with the change noted above.



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

December 11, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. M. P. Opalinski
Director of Environmental Affairs
Seminole Electric Cooperative Incorporated
16313 North Dale Mabry Highway
Post Office Box 27200
Tampa, Florida 33688

Dear Mr. Opalinski:

Re: Amendment of PSD-FL-018
Seminole Power Plant, Palatka, Unit No. 1
Petroleum Coke/Coal Performance Test Request

The Department has reviewed the request from Seminole Electric Cooperative Inc. (SECI) dated April 12 and supplementary information dated June 2 and August 3 to conduct performance tests while firing petroleum coke/coal blends at Seminole Power Plant, Palatka, Unit No. 1.

You are hereby authorized to conduct performance tests for pollutant emissions on Seminole Power Plant Unit No. 1 in Palatka, Putnam County while firing blends of petroleum coke (petcoke) and bituminous coal (coal). All Conditions of Certification and Conditions of Approval in your Site Certification and PSD Permit related to air pollution emission limits and control equipment remain in force.

The performance tests will be conducted in order to gather data regarding pollutant emissions and operational limitations while firing blends of petcoke and coal containing a maximum of 30 percent (% by weight) petcoke. Screening to determine whether future long-term firing of petcoke/coal blends constitutes a modification subject to a review for Prevention of Significant Deterioration (PSD) shall be performed in accordance with Chapter 403, F.S.; Chapters 62-210 through 62-297 and 62-4, F.A.C.; and, Title 40, Code of Federal Regulations (CFR; July 1, 1994 version). The procedure will consist of a comparison of estimates of "representative actual annual emissions" while burning petcoke/coal blends against past actual emissions while burning coal (or estimates of past actual emissions developed from 100 percent coal baseline performance tests).

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Page 2

The performance test results along with any modification application to allow permanent petcoke/coal burning will be reviewed by the Department's Bureau of Air Regulation (BAR) and interested agencies/parties (i.e., DEP Northeast District office, U.S. EPA, National Park Service, etc.).

The performance tests shall be subject to the following conditions:

1. The permittee shall notify, in writing, the Department's BAR office, the Northeast District office, and the Site Certification office at least 15 days prior to commencement of the baseline and the petcoke/coal blend performance tests. A written test result report shall be submitted to these offices within 45 days upon completion of the last test run.
2. The petcoke/coal blend performance tests shall commence by January 15, 1996 and be conducted for not more than 30 days. The tests shall be conducted based on the proposed testing protocol (letter dated August 3, 1995, included as an attachment) to establish steady state operation and to achieve a maximum (30%) blend. If, for any reasons, a steady state operation of 30% petroleum coke-coal blend, or less, is not achieved, or the testing at 30% petcoke blend or less, presents any operational or environmental concerns, the testing shall be curtailed. The Department shall be immediately notified of the problems that have prevented steady state operations and what steps will be initiated to correct the problem. All petcoke/coal blend firing counts against the 30 days of approved time for conducting tests. All testing shall be concluded within 60 days of when petcoke is first introduced into Unit No. 1.
3. Stack emissions from Unit No. 1 shall not exceed the following during baseline and petcoke/coal blend performance tests (based on most stringent of present PSD Permit and Certification Conditions):
 - a. Sulfur dioxide (SO_2) - 1.20 pounds per million Btu heat input and 10 percent of the potential combustion concentration (90 percent reduction).
 - b. Nitrogen oxides (NO_x) - 0.60 pounds per million Btu heat input and 35 percent of the potential combustion concentration (65 percent reduction.)
 - c. Particulate Matter - 0.03 pounds per million Btu heat input and 1 percent of the potential combustion concentration (99 percent reduction).

4. As-burned fuel samples shall be collected and analyzed for the sulfur, nitrogen, and metals (see condition No. 5) content throughout the petroleum coke-coal blend and the baseline coal test periods. Weekly composites from daily sampling shall be required; in addition and during the particulate matter test runs, a minimum of three (3) separate samples shall be taken and a composite of the three samples shall be analyzed.
5. The concentrations of chromium, lead, mercury, nickel, beryllium, vanadium, and zinc in the petcoke/coal blend shall be compared with the concentration of the same metals in the coal used during the baseline tests.
6. The performance test of the petcoke/coal blends shall be limited to a maximum of 30% petcoke, by weight. The maximum weight of the petroleum coke burned during the petcoke/coal blend performance tests shall not exceed 125,000 pounds per hour (averaged over 24 hours).
7. The maximum sulfur content of the coal shall not exceed 3.0 percent, by weight, during the baseline tests and the petroleum coke-coal blend tests. The maximum sulfur content of the petroleum coke shall not exceed 5.5 percent, by weight.
8. SO₂, NO_x, and opacity emissions data shall be recorded using continuous emissions monitors (CEMS) during the baseline and the petcoke/coal blend tests. If the plant CEMS are used for these tests, these systems shall be quality assured pursuant to 40 CFR 60, Appendix F requirements. The data assessment report per 40 CFR 60, Appendix F, for the most recent relative accuracy test audit (RATA) and most recent cylinder gas audit (CGA), shall be submitted with the test report. In addition, stack tests shall be conducted for the pollutants particulate matter (PM; assume that all of PM is PM₁₀), carbon monoxide, and sulfuric acid mist. A satisfactory performance test for each baseline test and each petroleum coke-coal blend shall consist of a minimum of three tests at three runs per test.
9. The pollutant emission results from the petroleum coke/coal blend performance tests shall be used to estimate "representative actual annual emissions" following an operational change per 62-212.200 (2)(d), F.A.C., for comparison with actual emissions per Rule 62-212.200(2)(a), F.A.C. The comparison will form the basis of a PSD applicability determination pursuant to 40 CFR 52.21. The results of baseline performance tests when firing coal will be used only to the extent that such information does not already exist or is insufficient to determine actual emissions.

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Page 4

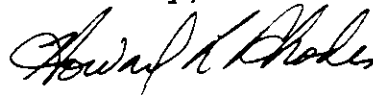
10. Any performance tests shall be conducted using EPA Reference Methods, as contained in 40 CFR 60 (Standards of Performance for New Stationary Sources), 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants), and 40 CFR 266, Appendix IX (Multi-metals), or any other method approved by the Department, in writing, in accordance with Chapter 62-297, F.A.C.
11. If additional time is needed, the permittee shall request an extension of time and provide the Department with documentation of the progress accomplished to-date and shall identify the work required to complete the performance tests.
12. Daily records (i.e., heat input, steam production, pressure, temperature, MW, fuel input rates, etc.) of boiler operations while firing the petcoke/coal blend and while firing only coal (baseline) during the tests shall be required. Also, daily recordkeeping of the control equipment parameters (i.e., the pH of the scrubbing medium, the mix ratio of the water and medium and the injection rate to the scrubber, the pressure drop across the scrubber, etc.) shall be required and any alteration of the control equipment operational parameters between the baseline and the petroleum coke-coal blend tests shall be documented and summarized in the final report.
13. A Type I or II stack audit may be conducted by the Northeast District office.
14. Complete documentation (recording) of any firing of the petroleum coke-coal blend shall be required (i.e., all CEMs records; testing results; materials utilized, by weight; etc.) and kept on file for a minimum of five years.
15. The authorized petroleum coke-coal blend performance tests shall not result in the release of objectionable odors pursuant to Rule 62-296.320(2), F.A.C.
16. Performance testing shall cease as soon as possible if Unit No. 1 operations are not in accordance with the conditions in the air section of Site Certification No. PA 78-10, PSD Permit No. PSD-FL-018, or this authorization protocol. Performance testing shall not resume until appropriate measures to correct the problem(s) have been implemented.
17. The performance tests for pollutant emissions shall be conducted under the direct supervision and responsible charge of a professional engineer registered in Florida.

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18. This Department action is only to authorize the petroleum coke-coal blend performance tests. Any firing of petroleum coke beyond the 30 days of testing within the 60 day period approved to conduct such tests will be deemed a violation of the Site Certification No. PA 78-10 and Permit No. PSD-FL-018.
19. The Northeast District office shall be immediately notified, in writing upon completion of the final test.
20. The testing series shall include emissions tests for each of the petroleum coke/coal blends and pollutants with the source operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the capacity allowed by Site Certification PA 78-10 and Permit PSD-FL-018. If it is impracticable to test at permitted capacity, then the source may be tested at a lesser rate. However, the tests shall be conducted at capacities within 10 percent of each other and corrected to the same heat input basis. Furthermore, subsequent source operation with a petroleum coke-coal blend, if requested and approved by the Department, shall be limited to 110 percent of the tested capacity for that blend until new tests are conducted, which requires prior Department authorization.
21. Prior written approval of the pollutants to be tested for and the appropriate test methods are mandatory prior to commencement of testing. The proposal shall be submitted to the Site Certification office, the Department's BAR office, and the Northeast District office for approval.
22. Attachments to be incorporated:
 - o SECI's April 12, 1994 letter
 - o Department's April 25, 1995 letter
 - o SECI's June 2, 1995 letter
 - o SECI's August 3, 1995 letter

This letter amendment must be attached to Permit No. PSD-FL-018 and shall become a part of the permit.

Sincerely,



Howard L. Rhodes, Director
Division of Air Resources
Management

HLR/sa/t

Enclosure

cc: Buck Oven, DEP
Jewell Harper, EPA
Ken Bachor, SECI

Chris Kirts, NED
John Bunyak, NPS

Memorandum

Florida Department of
Environmental Protection

RECEIVED

DEC 11 1995

BUREAU OF
AIR REGULATION

TO: Howard L. Rhodes

FROM: C. H. Fancy

DATE: December 11, 1995

SUBJECT: Seminole Electric Palatka - Petcoke Test Burn

Attached for your signature is an amendment to Seminole Electric's PSD Permit applicable to Unit No. 1 at their Palatka Power Plant.

The amendment allows them to conduct performance tests while firing petcoke to determine if there will be emissions increases related to a possible request to use a blend of petcoke on a permanent basis.

Unit No. 1 is equipped with an electrostatic precipitator for particulate control and a limestone scrubber for sulfur dioxide control. They will comply with emissions limitations given in their PSD permit and Site Certification while conducting the test burn. As usual the issue is whether the change will increase actual emissions.

We received no comments from the public, EPA or NPS when this was noticed and only minimal comments from the applicant. I recommend your approval of the attached amendment.

CHF/aal/l

Attachments

Fold at line over top of envelope

Is your RETURN ADDRESS completed 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 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.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- ☐ Addressee's Address
- ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
M. P. Opalinski
Seminole Electric Corp.
16313 N. Dale Mabry Hwy
Tampa, FL 33688

4a. Article Number
Z 127 633 219

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
12-18-95

5. Signature (Addressee)

6. Signature (Agent)
[Signature]

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 *U.S. GPO: 1993-352-714

Thank you for using Return Receipt Service.

DOMESTIC RETURN RECEIPT

Z 127 633 219



Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

PS Form 3800, March 1993

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Seminole Electric	
Tampa, FL	
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Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date 12-13-95	
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Unit #1	