



# Department of Environmental Protection

Lawton Chiles  
Governor

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2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Virginia B. Wetherell  
Secretary

March 30, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Richard Breitmoser, P.E.  
Division Chief  
Environmental Affairs Division  
St. Johns River Power Park  
11201 New Berlin Road  
Jacksonville, Florida 32226

Dear Mr. Breitmoser:

Re: Request to Conduct Tests for Pollutant Emissions While Firing a Blend of Petroleum Coke and Bituminous Coal in the St. Johns River Power Park (SJRPP) Unit #1; Site Certification No. PA 81-13; and, Amendment to the Federal Permit No. PSD-FL-010(A)

The Department has reviewed the request that you provided in a letter on December 20, 1994, and supplementary material on February 7, 1995, via the FAX. We have also considered the Department's legal authority to allow SJRPP to conduct the performance tests on Unit #1. Paragraph 403.061(15), Florida Statutes (F.S.), authorizes the Department to consult with any person proposing to construct, install, or otherwise acquire a pollution control device or system concerning the efficacy of such device or system, or the pollution problem which may be related to the source, device, or system. Paragraph 403.061(16), F.S., authorizes the Department to encourage voluntary cooperation by persons in order to achieve the purposes of the state environmental control act. Paragraph 403.061(18), F.S., authorizes the Department to encourage and conduct studies, investigations, and research relating to the causes and control of pollution. Rule 62-210.700(5), Florida Administrative Code (F.A.C.), authorizes the Department to consider variations in industrial equipment and make allowances for excess emissions that provide practical regulatory controls consistent with the public interest.

In accordance with the provisions of Paragraphs 403.061(15), (16), (18), and 403.516(1), F.S., and contingent on 14 days prior public notice and on resolution of any written responses by persons whose substantial interests are negatively affected by your proposal, you are hereby authorized to conduct performance tests for pollutant emissions on SJRPP's Unit #1 while firing a blend

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against the 21 days of approved time for conducting tests. All testing shall be concluded within 60 days of when petroleum coke is first introduced into SJRPP's Unit #1.

3. As-burned fuel samples shall be collected and analyzed for the sulfur, nitrogen, and metals (see condition No. 4) 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 analyzed.
4. The concentration of chromium, lead, mercury, nickel, beryllium, vanadium, and zinc in the petroleum coke-coal blend shall be compared with the concentration of the same metals in the coal used during the baseline tests.
5. The trial burn of the petroleum coke-coal blends shall be limited to a maximum of 20% petroleum coke, by weight. The maximum weight of the petroleum coke burned during the petroleum coke-coal blend performance tests shall not exceed 100,000 lbs/hr.
6. The maximum sulfur content of the coal shall not exceed 1.50 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 4 percent, by weight, which is the permitted value of the coal sulfur content at the facility.
7. Sulfur dioxide, nitrogen oxides (NO<sub>x</sub>), and opacity emissions data shall be recorded using continuous emissions monitors (CEMS) during the baseline and the petroleum coke-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 from 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 PM<sub>10</sub>), 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.

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15. Performance testing shall immediately cease if SJRPP's Unit #1 operations are not in accordance with the conditions in the air section of the Site Certification, No. PA 81-13; the Federal Permit, No. PSD-FL-010; and, this authorization protocol. Performance testing shall not resume until appropriate measures to correct the problem(s) have been implemented.
16. The performance tests for pollutant emissions shall be conducted under the direct supervision and responsible charge of a professional engineer registered in Florida.
17. This Department action is only to authorize the performance tests for a petroleum coke-coal blend performance tests, where prior public notice was published in a newspaper of general circulation in the Jacksonville area. Any firing of petroleum coke after the last performance test run is completed will be deemed a violation of the Site Certification, No. PA 81-13, and the Federal Permit, No. PSD-FL-010.
18. The Duval County's R&ESD office shall be notified, in writing, on the date of the last test run completion.
19. 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 Site Certification (PA 81-13) and Federal Permit (PSD-FL-010) capacity allowed. If it is impracticable to test at this capacity, then the source may be tested at less than capacity for the petroleum coke-coal blend and the baseline tests, but the tests must be conducted at the same capacity; and, in this case, 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 until new tests are conducted, which requires prior Department authorization.
20. 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 Duval County's R&ESD office for approval.

### Final Determination

The permit amendment to conduct pollutant emissions test while firing a blend of petroleum coke and coal on the St. Johns River Power Park's Unit #1 boiler, located in Duval County, Florida, was distributed on February 10, 1995. The Notice of Intent to Issue was published in the Florida Times Union on February 24, 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, applicant or the public.

The final action of the Department will be to issue the permit amendment as proposed.

**Memorandum**

Florida Department of  
**Environmental Protection**

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TO: Howard L. Rhodes  
FROM: Clair Fancy *CHF*  
DATE: March 29, 1995  
SUBJECT: Approval of a PSD Permit Amendment (PSD-FL-010A)  
St. Johns River Power Park, Duval County

Attached for your approval and signature is a PSD permit amendment authorizing St. Johns River Power Park's Unit #1 to conduct pollutant emissions test while firing a blend of upto 20% petroleum coke and coal.

This permit amendment represents approval of conducting a baseline test with 100% coal firing, and petroleum coke-coal blend performance tests for not more than 21 days.

The public did not object to the issuance of this permit amendment.

I recommend your approval and signature.

CHF/sa/t

attachments