

CERTIFIED MAIL



SJRO LC 95 482

October 2, 1995

Mr. Clair Fancy  
Florida Dept. of Environmental Protection  
Bureau of Air Regulation  
Mail Station 5505  
2600 Blairstone Road  
Tallahassee, Florida 32399-2400

RECEIVED  
OCT 3 1995  
Bureau of  
Air Regulation

RE: St. Johns River Power Park Unit 1  
Site Certification No. PA 81-13  
Petroleum Coke/Coal Test Burn Final Report

Dear Mr. Fancy:

The above referenced facility was authorized by the Florida Department of Environmental Protection's (FDEP) March 30, 1995 letter to test burn a blend of petroleum coke with coal. The test burn was performed August 8 - 19, 1995. Condition #1 of the FDEP authorization letter specifies that a written test report be submitted within 45 days upon completion of the last test run. Please find enclosed the test report with supporting documentation.

The results of the baseline and blend testing indicate that a blend of 80% coal and 20% petroleum coke can be burned successfully at SJRPP. Please note that SJRPP Units 1 and 2 are identical in design and are both required to comply with the limitations set forth in the Conditions of Certification. Based on the successful test of Unit 1 depicted in the enclosed test report, SJRPP requests that the Conditions of Certification be modified to burn petroleum coke in Units 1 & 2.

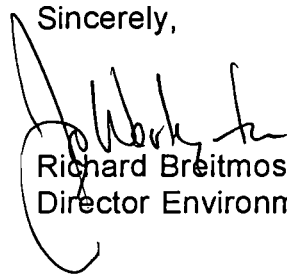
Condition #14 of the Certification states "Coal fired in Units 1 & 2 shall have an ash content not to exceed 18% and a sulfur content not to exceed 4% by weight." Condition #6 of the Letter of Authorization states "The maximum sulfur content of the coal shall not exceed 1.50%, by weight, during the baseline tests and the petroleum coke-coal blend tests. The maximum sulfur content of the petroleum coke shall not exceed 4%, by weight, which is the permitted value of the coal sulfur content at the facility."

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PETROLEUM COKE/COAL TEST BURN FINAL REPORT  
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The sulfur content of the coal and petroleum coke were below 1.5% and 4.0% respectively during the baseline and blend testing. In order to remain consistent with the Conditions of Certification as well as derive the most beneficial usage of a coal/petroleum coke fuel, SJRPP requests that the Conditions of Certification Condition #14 be modified to reflect that the sulfur content of the coal/petroleum coke blend not exceed 4%.

Please contact Jay Worley at (904)751-7729 if you have any question or require any additional information regarding this report and request for modification.

Sincerely,



Richard Breitmoser  
Director Environmental, Health & Safety



RB/JAW/sj

xc: J. Worley (SJRPP)

## **ST. JOHNS RIVER POWER PARK UNIT 1**

### **PETROLEUM COKE/COAL TEST BURN**

#### **BACKGROUND**

St. Johns River Power Park (SJRPP) investigated the feasibility of fueling the facility with a blend of bituminous coal and petroleum coke. SJRPP submitted a request to the Florida Department of Environmental Protection (FDEP) on December 20, 1994 to conduct a test burn of petroleum coke/bituminous coal. The FDEP's authorization letter dated March 30, 1995 approved the test burn in accordance with conditions as specified in the letter (Attachment A). The conditions specified notifications and coal baseline and petroleum coke/coal blend operational requirements, data collection and air emissions testing with fuel sampling and analyses. In addition, SJRPP collected in-house unit data to record and review operational performance.

#### **DISCUSSION**

The petroleum coke was received at SJRPP on July 15, 1995. FDEP baseline testing was conducted from July 18 - 20, 1995. Baseline testing was delayed due to pulverizer mechanical repairs. Upon repair, the final baseline test was conducted on August 8, 1995.

The petroleum coke/bituminous coal blend was introduced August 9, 1995 to commence the loading process to achieve the steady state operation of an 80% bituminous coal / 20% petroleum coke blend. SJRPP Unit 1 achieved a steady state 80/20 blend on August 11, 1995 in conjunction with the commencement of the FDEP blend testing.

The 80/20 blend was steady state through August 15, 1995. A new blend of approximately 87/13 and 83/17 was introduced on August 16 and 17, 1995, respectively, to assess the on-site bituminous coal supply. On August 18, 1995 an 80/20 blend was returned to the unit for the remainder of the test burn. By the morning of August 20, 1995, the supply of petroleum coke had been completely consumed.

**RESULTS** - Results of conditions set forth in FDEP's Letter of Authorization.

The following corresponds to the numbered Conditions 1 - 21 of the FDEP's Letter of Authorization (Attachment A).

Condition 1:            1) Please refer to Attachment B for the written notification of commencement. 2) This report submittal and attachments serve as the written test result report which has been submitted within 45 days upon completion of the final test run (8-19-95).

- Condition 2: The petroleum coke - coal blend performance tests were not conducted for more than 21 days. The blend tests commenced August 11, 1995 and were completed August 19, 1995 (9 days). An 80/20 blend steady state operation was established within 2 days of introduction of the blend. No problems were encountered that prevented steady state operation. The petroleum coke was first introduced into SJRPP's Unit 1 on August 9, 1995 and was completely consumed by the morning of August 20, 1995 (11.5 days).
- Condition 3: Please refer to Attachment C.
- Condition 4: Please refer to Attachment C.
- Condition 5: The petroleum coke and coal were fed into the reclaim hoppers located in the SJRPP coal yard (one hopper receiving petroleum coke and the other receiving coal). The belt feeders at the bottom of the hoppers each deliver fuel to the loading conveyor. The belt feeders were scale tested and adjusted prior to the test to operate at 80% and 20% of the conveyor's normal capacity of 1,600 tons/hour. A consistent 80/20 blend was accomplished by having both feeders operating simultaneously during this test.
- Condition 6: Please refer to Attachment D for the baseline coal and petroleum coke as-received analytical results.
- Condition 7: Please refer to Attachment E for the 1)Continuous Emissions Monitoring Systems (CEMS) data, 2)CEMS Quality Assurance data - most recent relative accuracy test audit and cylinder gas/linearity audit and 3)stack test results for particulate matter, carbon monoxide and sulfuric acid mist.
- Condition 8: Please refer to Attachment E for the baseline and blend pollutant emissions results.
- Condition 9: Please refer to Attachment F.
- Condition 10: The test burn was completed within the specified time frame.
- Condition 11: Please refer to Attachment G for the boiler operations and control equipment data.
- Condition 12: Please contact Duval County's R&ESD office.
- Condition 13: Complete documentation shall be kept on file for a minimum of five years.

- Condition 14: There was no release of objectional odors.
- Condition 15: Performance testing was conducted in accordance to these conditions and testing was not required to cease.
- Condition 16: Please refer to the Total Source Analysis, Inc. final baseline and blend test reports in Attachment E for the signature and stamp of the Florida Professional Engineer.
- Condition 17: Please refer to Attachment H.
- Condition 18: Please refer to Attachment I.
- Condition 19: SJRPP Unit 1 was operating at permitted capacity during the emissions testing. Please refer to Attachment G for boiler operational data.
- Condition 20: Please refer to Attachment J.
- Condition 21: Please refer to Attachment A.

### **CONCLUSIONS**

The results of the baseline and blend testing indicate that a blend of 80% coal and 20% petroleum coke can be burned successfully at SJRPP. There was not observed adverse effects on equipment or operational activities. The pollutant emissions testing and CEMS data resulted in no increases above the permitted limitations.

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):

1.  Addressee's Address
2.  Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:-  
 Richard Breitmoser, PE  
 Division Chief  
 Envir. Affairs Division  
 St. Johns River Power Park  
 11201 New Berlin Rd  
 Jacksonville, FL 32226

4a. Article Number  
 Z 311 902 942

4b. Service Type

|   |   |
|---|---|
| <input type="checkbox"/> Registered           | <input type="checkbox"/> Insured                        |
| <input checked="" type="checkbox"/> Certified | <input type="checkbox"/> COD                            |
| <input type="checkbox"/> Express Mail         | <input type="checkbox"/> Return Receipt for Merchandise |

7. Date of Delivery  
 4.5.95

5. Signature (Addressee)  
 [Signature]

6. Signature (Agent)  
 [Signature]

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

Thank you for using Return Receipt Service.

Z 311 902 942



**Receipt for Certified Mail**  
 No Insurance Coverage Provided  
 Do not use for International Mail  
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PS Form 3800, March 1993

|   |                      |
|---|----------------------|
| Sent to   | Richard Breitmoser   |
| Street and No.  | St. Johns R P P      |
| P.O., State and ZIP Code                                      | Jax, FL              |
| Postage   | \$                   |
| Certified Fee   |                      |
| 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  | PSRF1-D10(A) 3-31-95 |



# Department of Environmental Protection

Lawton Chiles  
Governor

Twin Towers Office Building  
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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of petroleum coke and bituminous coal. SJRPP's Unit #1 was permitted under Site Certification, No. PA 81-13, and Federal Permit No. PSD-FL-010, and is certified/permitted to fire only coal in accordance with the referenced Site Certification/Federal Permit.

The emissions tests are being proposed in order to gather data regarding pollutant emissions while firing a maximum of 20%, by weight, blend of petroleum coke and bituminous coal. Screening to determine whether this change results in a modification and to determine Prevention of Significant Deterioration (PSD) and/or Nonattainment Area (NAA) applicability shall be in accordance with Chapter 403, F.S.; Chapters 62-209 thru 62-297 and 62-4, F.A.C.; and, Title 40 Code of Federal Regulations (CFR; July 1, 1993 version), which will compare the actual pollutant emissions of the baseline tests (100% coal) with the actual pollutant emissions of the performance tests while firing a blend of petroleum coke and bituminous coal. The performance test results will be reviewed by the Department's Bureau of Air Regulation (BAR) and involved agencies/parties (i.e., Duval County's Regulatory and Environmental Services Department (R&ESD), 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 Duval County's R&ESD office, and the Site Certification office at least 15 days prior to commencement of the baseline and the petroleum coke-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 petroleum coke-coal blend performance tests shall be conducted for not more than 21 days. Based on the proposed testing protocol (faxed letter dated February 7, 1995, included as an attachment) to establish steady state operation and to achieve a maximum (20%) blend for which the tests shall be conducted, the Department will allow the first 4 days of petroleum coke-coal blend burning to establish these parameters. If, for any reasons, a steady state operation of 20% petroleum coke-coal blend, or less, is not achieved, 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 this. Note that all petroleum coke-coal blend firing counts



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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 (NOx), 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 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.

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8. For PSD, NAA, and modification assessment purposes, the actual pollutant emissions results from the petroleum coke-coal blend performance tests shall be compared with the actual pollutant emissions results from the baseline performance tests when firing coal only.
9. 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.
10. 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 what is left to be done to complete the performance tests.
11. Daily records (i.e., heat input, steam production, pressure, temperature, MW, fuel input rates, etc.) of boiler operations while firing the petroleum coke-coal blend and while firing only coal (baseline) during the tests shall be required. Also, daily record keeping 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.
12. A Type I or II stack audit may be conducted by the Duval County's R&ESD office.
13. 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.
14. 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.

Letter to Authorize a Test Burn Using Petroleum Coke with Coal  
St. Johns River Power Park: Unit #1  
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March 30, 1995  
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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.

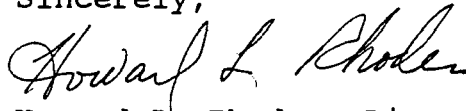
Letter to Authorize a Test Burn Using Petroleum Coke with Coal  
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21. Attachments to be incorporated:

- o SJRPP's December 20, 1994 letter with Attachment.
- o SJRPP's February 7, 1995 facsimile.

This letter amendment must be attached to the Federal Permit, No. PSD-FL-010(A) (Site Certification No. PA 81-13), 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  
Steve Pace, R&ESD  
Jewell Harper, EPA/Region IV  
John Bunyak, NPS  
Doug Beason, Esq., DEP  
Jay Worley, SJRPP

### 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**

---

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

SJRO LC 95 053

March 17, 1995



Mr. C.H. Fancy, P.E.  
Chief, Bureau of Air Regulation  
Florida Dept. of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

RECEIVED

MAR 22 1995

RE: St. Johns River Power Park Unit #1  
Request to Fire a Blend of Petroleum Coke and Bituminous Coal  
Public Notice of Intent to Issue an Amendment

Bureau of  
Air Regulation

Dear Mr. Fancy:

A request to conduct tests for pollutant emissions while firing a blend of petroleum coke and bituminous coal at the above referenced facility was submitted to your agency on 12-20-94 with supplemental material submitted on 02-07-95. Your agency prepared a draft letter authorization and the "Public Notice Intent to Issue" which was received in our office 02-16-95.

A copy of the "Notice of Intent to Issue an Amendment" which was published in the Florida Times Union Friday, February 24, 1995 to commence the 14 day public comment period was submitted to your attention February 27, 1995. Pursuant to your request please find enclosed the "Affidavit of Publication" from the newspaper that published the notice, Florida Times Union.

Sincerely,

Jay Worley  
Environmental & Safety Manager

JAW/pct

xc: H. Oven, FDEP  
E. Frey, FDEP  
S. Pace, RESD  
R. Breitmoser, JEA

**FLORIDA PUBLISHING COMPANY**

*Publisher*

JACKSONVILLE, DUVAL COUNTY, FLORIDA

STATE OF FLORIDA }  
COUNTY OF DUVAL }

Before the undersigned authority personally appeared \_\_\_\_\_

Cappy MacPherson

who on oath says that he is

Classified Adv Inside Sales Rep of The Florida Times-Union,

a daily newspaper published at Jacksonville in Duval County, Florida; that the

attached copy of advertisement, being a Legal Notice

in the matter of Notice of Intent to Issue an Amendment

in the \_\_\_\_\_ Court,

was published in THE FLORIDA TIMES-UNION in the issues of \_\_\_\_\_

February 24, 1995

Affiant further says that the said The Florida Times-Union is a newspaper published at Jacksonville, in said Duval County, Florida, and that the said newspaper has heretofore been continuously published in said Duval County, Florida, The Florida Times-Union each day, has been entered as second class mail matter at the postoffice in Jacksonville, in said Duval County, Florida, for a period of one year next preceeding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in said newspaper.

Sworn to and subscribed before me  
this 28 day of

February A.D. 19 95

*[Signature]*  
Notary Public,  
State of Florida at Large.

*[Signature]*

My Commission Expires  
VERA JANIE LIKENS  
MY COMMISSION # CC-232556 EXPIRES  
JUNE 1, 1996  
BONDED THRU TROY FAIN INSURANCE, INC.

DA 444

State of Florida  
Department of Environmental Protection  
Notice of Intent to Issue an Amendment

St. Johns River Power Park (SJRPP), Unit #1  
Site Certification No. PA 81-13  
Federal Permit PSD-FL010(A)

The Department of Environmental Protection (Department) hereby gives notice of its intent to issue a SJRPP, an approval authorizing performance tests for pollutant emissions while firing a blend of petroleum coke and coal. The proposal is detailed in the trail performance test request and protocol. The Department is issuing this authorization for the reasons stated below.

The applicant, St. Johns River Power Park, 11201 New Berlin Road, Jacksonville, Florida 32226, submitted a request on December 20, 1994, and supplementary material on February 7, 1995, to the Department's Siting Coordination Section for authorization to conduct pollutant emissions tests on the SJRPP's Unit #1 boiler while firing a blend of petroleum coke and coal. The performance tests for pollutant emissions will be conducted at baseline conditions (firing 100% coal only) and while firing a blend of petroleum coke and coal. Petroleum coke will be blended at a maximum of 20 percent, by weight, with coal during the trail performance tests. SJRPP's Unit #1 was certified under Site Certification, No. PA 81-13, and Federal construction permit, No. PSD-FL-010, and is not currently permitted to fire petroleum coke in accordance with the referenced Site Certification and permit.

Screening for a modification and a determination of Prevention of Signification and/or Nonattainment Area (NAA) requirements shall be in accordance with Chapter 403, Florida Statutes (F.S.); Florida Administrative Code (F.A.C.) Chapters 62-209 through 62-297 and 62-4; and, Title 40 of the Code of Federal Regulations (CFR; Parts 52, 60, 61 and 266 (July 1, 1993 version).

If, after the performance test results are evaluated by the Department's Site Certification Section and affected parties (i.e., Duval County's Regulatory and Environmental Services Department, U.S. EPA, National Park Service, Department's Bureau of Air Regulation, and etc.) and it is determined that actual pollutant emissions (baseline at 100% coal vs. a blend of petroleum coke and coal) did not increase, the Department may issue a modification to the Site Certification, No. PA 81-13, and an amendment to the Federal Permit, No. PSD-FL-010(A), authorizing continuous utilization/firing of a blend of petroleum coke and coal in the SJRPP's Unit #1. However, if there is an actual emissions increase in pollutant emissions, SJRPP will not be permitted to fire a blend of petroleum coke and coal in the emissions unit without further PSD and/or NAA evaluation by the Department's Site Certification Section and involved agencies/parties. The proposed project will occur at the applicant's facility located in Jacksonville, Duval County, Florida.

The Department has jurisdiction under Paragraph 403.516(1), F.S. The project is not exempt from Site Certification procedures. The Department has determined that a Site Certification modification and at least an amendment to the Federal Permit are required to make the proposed activity permanent. If SJRPP wishes to modify the Conditions of Certification and amend/modify the Federal Permit to allow the burning of a blend of petroleum coke and coal in SJRPP's Unit #1 on a permanent basis, a subsequent proceeding will be announced providing an opportunity for any affected person to object in the following manner.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57 F.S.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Site Certification File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;



(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and,

(g) A statement of the relief sought by petitioner, stating precisely the action petition wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the request/application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The request is available for public inspection during business hours, 8:30 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection  
Site Certification Section  
3900 Commonwealth Blvd.  
Tallahassee, Florida 32399-3000

Department of Environmental Protection  
Bureau of Air Regulation  
111 South Magnolia Drive  
Tallahassee, Florida 32301

Duval County Regulatory and  
Environmental Services Department  
421 West Church Street, Suite 412  
Jacksonville, Florida 32202-4111

Any person may send written comments on the proposed action to Mr. Hamilton Owen, Site Certification Section, at the Department's Tallahassee address. All comments received within 14 days of the publication of this notice will be considered in the Department's final determination.

SJRO LC 95 042

February 27, 1995

Mr. C.H. Fancy, P.E.  
Chief, Bureau of Air Regulation  
Florida Dept. of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400



RECEIVED  
MAR 2 1995  
Bureau of  
Air Regulation

RE: St. Johns River Power Park Unit #1  
Request to Fire a Blend of Petroleum Coke and Bituminous Coal  
Public Notice of Intent to Issue an Amendment

Dear Mr. Fancy:

A request to conduct tests for pollutant emissions while firing a blend of petroleum coke and bituminous coal at the above referenced facility was submitted to your agency on 12-20-94 with supplemental material submitted on 02-07-95. Your agency prepared a draft letter authorization and the "Public Notice Intent to Issue" which was received in our office 02-16-95.

Please find attached a copy of the "Notice of Intent to Issue an Amendment" which was published in the Florida Times Union Friday, February 24, 1995 to commence the 14 day public comment period.

Please contact me at (904) 751-7729 if you have any questions.

Sincerely,

Jay Worley  
Environmental & Safety Manager

JAW/pct

xc: H. Oven, FDEP  
E. Frey, FDEP  
S. Pace, RESD  
R. Breitmoser, JEA

State of Florida  
Department of Environmental Protection  
Notice of Intent to Issue an Amendment

St. Johns River Power Park (SJRPP), Unit #1  
Site Certification No. PA 81-13  
Federal Permit PSD-FL010(A)

The Department of Environmental Protection (Department) hereby gives notice of its intent to issue a SJRPP, an approval authorizing performance tests for pollutant emissions while firing a blend of petroleum coke and coal. The proposal is detailed in the trail performance test request and protocol. The Department is issuing this authorization for the reasons stated below.

The applicant, St. Johns River Power Park, 11201 New Berlin Road, Jacksonville, Florida 32226, submitted a request on December 20, 1994, and supplementary material on February 7, 1995, to the Department's Siting Coordination Section for authorization to conduct pollutant emissions tests on the SJRPP's Unit #1 boiler while firing a blend of petroleum coke and coal. The performance tests for pollutant emissions will be conducted at baseline conditions (firing 100% coal only) and while firing a blend of petroleum coke and coal. Petroleum coke will be blended at a maximum of 20 percent, by weight, with coal during the trail performance tests. SJRPP's Unit #1 was certified under Site Certification, No. PA 81-13, and Federal construction permit, No. PSD-FL-010, and is not currently permitted to fire petroleum coke in accordance with the referenced Site Certification and permit.

Screening for a modification and a determination of Prevention of Signification and/or Nonattainment Area (NAA) requirements shall be in accordance with Chapter 403, Florida Statutes (F.S.); Florida Administrative Code (F.A.C.) Chapters 62-209 through 62-297 and 62-4; and, Title 40 of the Code of Federal Regulations (CFR); Parts 52, 60, 61 and 266 (July 1, 1993 version).

If, after the performance test results are evaluated by the Department's Site Certification Section and affected parties (i.e., Duval County's Regulatory and Environmental Services Department, U.S. EPA, National Park Service, Department's Bureau of Air Regulation, and etc.) and it is determined that actual pollutant emissions (baseline at 100% coal vs. a blend of petroleum coke and coal) did not increase, the Department may issue a modification to the Site Certification, No. PA 81-13, and an amendment to the Federal Permit, No. PSD-FL-010(A), authorizing continuous utilization/firing of a blend of petroleum coke and coal in the SJRPP's Unit #1. However, if there is an actual emissions increase in pollutant emissions, SJRPP will not be permitted to fire a blend of petroleum coke and coal in the emissions unit without further PSD and/or NAA evaluation by the Department's Site Certification Section and involved agencies/parties. The proposed project will occur at the applicant's facility located in Jacksonville, Duval County, Florida.

The Department has jurisdiction under Paragraph 403.516(1), F.S. The project is not exempt from Site Certification procedures. The Department has determined that a Site Certification modification and at least an amendment to the Federal Permit are required to make the proposed activity permanent. If SJRPP wishes to modify the Conditions of Certification and amend/modify the Federal Permit to allow the burning of a blend of petroleum coke and coal in SJRPP's Unit #1 on a permanent basis, a subsequent proceeding will be announced providing an opportunity for any affected person to object in the following manner.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57 F.S.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Site Certification File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and,
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the request/application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-6.207, F.A.C.

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Department of Environmental Protection  
Site Certification Section  
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Tallahassee, Florida 32399-3000

Department of Environmental Protection  
Bureau of Air Regulation  
111 South Magnolia Drive  
Tallahassee, Florida 32301

Duval County Regulatory and  
Environmental Services Department  
421 West Church Street, Suite 412  
Jacksonville, Florida 32202-4111

Any person may send written comments on the proposed action to Mr. Hamilton Owen, Site Certification Section, at the Department's Tallahassee address. All comments received within 14 days of the publication of this notice will be considered in the Department's final determination.

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):

- 1.  Addressee's Address
- 2.  Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:  
*Richard Breitmoser, PE.  
 Environmental Affairs Div.  
 St. Johns River Power Park  
 11201 New Berlin Rd.  
 Jacksonville, FL 32226*

4a. Article Number  
*Z 751 860 025*

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

7. Date of Delivery  
*2-16-95*

5. Signature (Addressee)  
*Tom Nichols*

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

6. Signature (Agent)

PS Form **3811**, December 1991    \*U.S. GPO: 1992-323-402    **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

Z 751 860 025



**Receipt for Certified Mail**

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

|  |    |
|--|----|
| Sent to:<br><i>Richard Breitmoser</i>  |    |
| Street and No.<br><i>St. Johns River Power</i>   |    |
| P.O., State and ZIP Code<br><i>Jax, FL</i>   |    |
| Postage  | \$ |
| Certified Fee  |    |
| 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<br><i>2-14-95</i><br><i>Request to Conduct Test for Pollutant Emissions</i> |    |

PS Form **3800**, March 1993



# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

February 10, 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. Based on the request, the Department has prepared the enclosed draft letter authorization to conduct some performance tests while firing a petroleum coke and coal blend in SJRPP's Unit #1 boiler. Also, please find enclosed the Public Notice Intent to Issue, which is to be placed by you in the appropriate newspaper.

If there are any questions, please call Mr. Syed Arif at (904) 488-1344 or write to Mr. A. A. Linero at the above address.

Sincerely,

C. H. Fancy, P.E.  
Chief  
Bureau of Air Regulation

CHF/SA/sa

Enclosures

cc: B. Oven, DEP  
J. Harper, EPA  
D. Beason, Esq., DEP

S. Pace, R&ESD  
J. Bunyak, NPS  
J. Worley, SJRPP



# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

February xx, 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 (see attached notice to be published by SJRPP) and contingent 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

Letter to Authorize a Test Burn Using Petroleum Coke with Coal  
St. Johns River Power Park: Unit #1  
Site Certification No. PA 81-13/Federal Permit No. PSD-FL-010(A)  
February xx, 1995  
Page 2

emissions on SJRPP's Unit #1 while firing a blend of petroleum coke and bituminous coal. SJRPP's Unit #1 was permitted under Site Certification, No. PA 81-13, and Federal Permit No. PSD-FL-010, and is certified/permitted to fire only coal in accordance with the referenced Site Certification/Federal Permit.

The emissions tests are being proposed in order to gather data regarding pollutant emissions while firing a maximum of 20%, by weight, blend of petroleum coke and bituminous coal. Screening to determine whether this change results in a modification and to determine Prevention of Significant Deterioration (PSD) and/or Nonattainment Area (NAA) applicability shall be in accordance with Chapter 403, F.S.; Chapters 62-209 thru 62-297 and 62-4, F.A.C.; and, Title 40 Code of Federal Regulations (CFR; July 1, 1993 version), which will compare the actual pollutant emissions of the baseline tests (100% coal) with the actual pollutant emissions of the performance tests while firing a blend of petroleum coke and bituminous coal. The performance test results will be reviewed by the Department's Bureau of Air Regulation (BAR) and involved agencies/parties (i.e., Duval County's Regulatory and Environmental Services Department (R&ESD), 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 Duval County's R&ESD office, and the Site Certification office at least 15 days prior to commencement of the baseline and the petroleum coke-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 petroleum coke-coal blend performance tests shall be conducted for not more than 21 days. Based on the proposed testing protocol (faxed letter dated February 7, 1995, included as an attachment) to establish steady state operation and to achieve a maximum (20%) blend for which the tests shall be conducted, the Department will allow the first 4 days of petroleum coke-coal blend burning to establish these parameters. If, for any reasons, a steady state operation of 20% petroleum coke-coal blend, or less, is not achieved, 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 this. Note that all petroleum coke-coal



Letter to Authorize a Test Burn Using Petroleum Coke with Coal  
St. Johns River Power Park: Unit #1  
Site Certification No. PA 81-13/Federal Permit No. PSD-FL-010(A)  
February xx, 1995  
Page 3

blend firing counts 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.



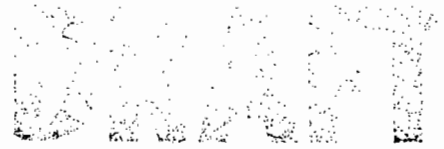
Letter to Authorize a Test Burn Using Petroleum Coke with Coal  
St. Johns River Power Park: Unit #1  
Site Certification No. PA 81-13/Federal Permit No. PSD-FL-010(A)  
February xx, 1995  
Page 4

8. For PSD, NAA, and modification assessment purposes, the actual pollutant emissions results from the petroleum coke-coal blend performance tests shall be compared with the actual pollutant emissions results from the baseline performance tests when firing coal only.
9. 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.
10. 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 what is left to be done to complete the performance tests.
11. Daily records (i.e., heat input, steam production, pressure, temperature, MW, fuel input rates, etc.) of boiler operations while firing the petroleum coke-coal blend and while firing only coal (baseline) during the tests shall be required. Also, daily record keeping 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.
12. A Type I or II stack audit may be conducted by the Duval County's R&ESD office.
13. 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.
14. 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.

DRAFT

Letter to Authorize a Test Burn Using Petroleum Coke with Coal  
St. Johns River Power Park: Unit #1  
Site Certification No. PA 81-13/Federal Permit No. PSD-FL-010(A)  
February xx, 1995  
Page 5

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.



Letter to Authorize a Test Burn Using Petroleum Coke with Coal  
St. Johns River Power Park: Unit #1  
Site Certification No. PA 81-13/Federal Permit No. PSD-FL-010(A)  
February xx, 1995  
Page 6

21. Attachments to be incorporated:
- o SJRPP's December 20, 1994 letter with Attachment.
  - o SJRPP's February 7, 1995 facsimile.

This letter amendment must be attached to the Federal Permit, No. PSD-FL-010(A) (Site Certification No. PA 81-13), and shall become a part of the permit.

Sincerely,

Howard L. Rhodes  
Director  
Division of Air Resources  
Management

HLR/BM/rbm

Attachments

cc: Buck Oven, DEP.  
Steve Pace, R&ESD  
Jewell Harper, EPA  
John Bunyak, NPS  
Doug Beason, Esq., DEP  
Jay Worley, SJRPP

State of Florida  
Department of Environmental Protection  
Notice of Intent to Issue an Amendment

St. Johns River Power Park (SJRPP), Unit #1

Site Certification No. PA 81-13

Federal Permit PSD-FL-010(A)

The Department of Environmental Protection (Department) hereby gives notice of its intent to issue to SJRPP, an approval authorizing performance tests for pollutant emissions while firing a blend of petroleum coke and coal. The proposal is detailed in the trial performance test request and protocol. The Department is issuing this authorization for the reasons stated below.

The applicant, St. Johns River Power Park, 11201 New Berlin Road, Jacksonville, Florida 32226, submitted a request on December 20, 1994, and supplementary material on February 7, 1995, to the Department's Siting Coordination Section for authorization to conduct pollutant emissions tests on the SJRPP's Unit #1 boiler while firing a blend of petroleum coke and coal. The performance tests for pollutant emissions will be conducted at baseline conditions (firing 100% coal only) and while firing a blend of petroleum coke and coal. Petroleum coke will be blended at a maximum of 20 percent, by weight, with coal during the trial performance tests. SJRPP's Unit #1 was certified under Site Certification, No. PA 81-13, and Federal construction permit, No. PSD-FL-010, and is not currently permitted to fire petroleum coke in accordance with the referenced Site Certification and permit.

Screening for a modification and a determination of Prevention of Signification and/or Nonattainment Area (NAA) requirements shall be in accordance with Chapter 403, Florida Statutes (F.S.); Florida Administrative Code (F.A.C.) Chapters 62-209 through 62-297 and 62-4; and, Title 40 of the Code of Federal Regulations [CFR; Parts 52, 60, 61, and 266 (July 1, 1993 version)].

If, after the performance test results are evaluated by the Department's Site Certification Section and affected parties (i.e., Duval County's Regulatory and Environmental Services Department, U.S. EPA, National Park Service, Department's Bureau of Air Regulation, and etc.) and it is determined that actual pollutant emissions (baseline @ 100% coal vs. a blend of petroleum coke and coal) did not increase, the Department may issue a modification to the Site Certification, No. PA 81-13, and an amendment to the Federal Permit, No. PSD-FL-010(A), authorizing continuous utilization/firing of a blend of petroleum coke and coal in the

SJRPP's Unit #1. However, if there is an actual emissions increase in pollutant emissions, SJRPP will not be permitted to fire a blend of petroleum coke and coal in the emissions unit without further PSD and/or NAA evaluation by the Department's Site Certification Section and involved agencies/parties. The proposed project will occur at the applicant's facility located in Jacksonville, Duval County, Florida.

The Department has jurisdiction under Paragraph 403.516(1), F.S. The project is not exempt from Site Certification procedures. The Department has determined that a Site Certification modification and at least an amendment to the Federal Permit are required to make the proposed activity permanent. If SJRPP wishes to modify the Conditions of Certification and amend/modify the Federal Permit to allow the burning of a blend of petroleum coke and coal in SJRPP's Unit #1 on a permanent basis, a subsequent proceeding will be announced providing an opportunity for any affected person to object in the following manner.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Site Certification File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and,

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the request/application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The request is available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection  
Site Certification Section  
3900 Commonwealth Blvd.  
Tallahassee, Florida 32399-3000

Department of Environmental Protection  
Bureau of Air Regulation  
111 South Magnolia Drive  
Tallahassee, Florida 32301

Duval County Regulatory and Environmental Services Department  
421 West Church Street, Suite 412  
Jacksonville, Florida 32202-4111

Any person may send written comments on the proposed action to Mr. Hamilton Owen, Site Certification Section, at the Department's Tallahassee address. All comments received within 14 days of the publication of this notice will be considered in the Department's final determination.

Best Available Copy

JACKSONVILLE ELECTRIC AUTHORITY  
P. O. BOX 53015  
233 W. DUVAL STREET  
JACKSONVILLE, FL 32201

*File Copy*

SJRCTENV 87-7

March 13, 1987

Received DER



MAR 17 1987

EPS

Mr. Hamilton S. Oven, Jr, P.E.  
Administrator  
Siting Coordination Section  
Fla. Dept. of Env. Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32301-8241

DER

MAY 1 1987

BAQM

Dear Mr. Oven:

Re: St. Johns River Coal Terminal (SJRCT)  
Intended Use of Self-Unloading Coal Ships

The purpose of this letter is to inform the Florida Department of Environmental Regulation (FDER) that JEA proposes to use self-unloading ships at SJRCT, as well as conventional coal carriers. Self-unloaders (see attached photograph) are equipped with a mechanical system that reclaims coal from the ship's holds and places it on a boom that swivels from a fixed point toward the stern of the ship. The boom can be swung away from the centerline of the ship, with the discharge end placed over the receiving hopper of the ship unloader gantry crane. Coal is discharged in a continuous stream into the ship unloader hopper, flows through the ship unloader and is placed on the dock conveyor. Thus, the self-unloader ship operation involves unloading of coal into the ship unloader hopper by the ship's boom, in lieu of utilizing the grab bucket. Once in the hopper, the flow of the coal is identical for both operations.

Coal unloading from the vessel by means of the self-unloading system described above is not expected to result in a change in dust emissions from the case currently licensed, which involves conventional ship unloading by means of grab bucket. All of the dust control measures to be deployed for grab bucket unloading will be utilized during self-unloading. In addition, the vessels under consideration in most cases have means of applying moisture to the coal, as necessary, by means of ship-mounted sprays. Therefore, coal entering the ship unloader hopper would essentially be "pre-conditioned" for dust control. Dust emission calculations demonstrating equivalent emissions between the two unloading methods are attached. Because of the insignificant change associated with the use of self-unloading vessels, we believe that no permit modification is necessary.

In addition, we would like to inform FDER that the ship unloader will be equipped with a dust collection system in addition to the wet suppression system specified in our May 15, 1986 letter. Both the dry collection system and the wet suppression system

(CONT.)

Mr. Hamilton S. Oven, Jr.  
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will be designed to meet the 10 percent opacity permit requirement. The systems will be used interchangeably, depending on the coal characteristics and operating conditions. Also, wet suppression systems have been added to Transfer Station Nos. 3, 4, 6 and 7, the stacker and the reclaimer. Dry collection has been added to Transfer Station No. 5. These systems will also be utilized as necessary to comply with the 10 percent opacity limit.

If you have any questions or require additional information, please contact Athena Mann at (904) 633-4517.

Very truly yours,



Richard Breitmoser, P.E.  
Division Chief  
Research & Environmental  
Affairs Division

RB/AJT/lwr

cc: Ernest Frey, FDER  
Steven Pace, BESD

Attachments: 1) Dust Emission Calculations for Self-Unloading  
Vessel  
2) Photograph of Self-Unloading Vessel



ATTACHMENT 1

JACKSONVILLE ELECTRIC AUTHORITY - ST. JOHNS RIVER COAL TERMINAL

DUST EMISSION CALCULATIONS  
FOR  
SELF-UNLOADING VESSEL  
(FEBRUARY, 1987)

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Emission Factor (continuous drop):

$$E(\text{lbs/ton}) = k(0.0018) \frac{\left(\frac{S}{5}\right)\left(\frac{U}{5}\right)\left(\frac{H}{10}\right)}{\left(\frac{M}{2}\right)^2}$$

Reference: AP-42, Section 11.2.3, Aggregate Handling and Storage Piles

Where:

k = particle size correction = 1.0  
 S = silt content (percent) = 5  
 M = surface moisture content (percent) = 5.5  
 (see below)  
 U = wind speed (mph) = 8.4  
 H = drop height (ft) = 40

Surface moisture content:

In "Estimate of Particulate Emissions: St. Johns River Coal Terminal and Blending Additions at St. Johns River Power Park", May, 1986, a "worst-case" M of 5% was used. The self-unloaders currently contemplated have sprays mounted on the ship and can raise the surface moisture content of the coal and suppress dust when necessary. Therefore, assuming usage of the ship-mounted sprays on coal with a low surface moisture, the previous M has been revised upwards to value of 5.5%.

Substituting for variables:

$$E(\text{lbs/ton}) = 1 (0.0018) \frac{\left(\frac{5}{5}\right)\left(\frac{8.4}{5}\right)\left(\frac{40}{10}\right)}{\left(\frac{5.5}{2}\right)^2}$$

$$= 0.0016$$

ATTACHMENT 1

## JACKSONVILLE ELECTRIC AUTHORITY - ST. JOHNS RIVER COAL TERMINAL

DUST EMISSION CALCULATIONS  
FOR  
SELF-UNLOADING VESSEL  
(FEBRUARY, 1987)

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Process Rate:            Limited by SJRCT conveyor belt capacity  
                             = 2200 STPH

Control:            dust suppression sprays and wind guards, composite  
                             control efficiency = 70%

(Reference:    "Estimate of Particulate Emissions:  
St. Johns River Coal Terminal and Blending Additions  
at St. Johns River Power Park", May, 1986)

Total controlled emissions (lbs/hr) =

$$\text{emission factor} \left( \frac{\text{lbs dust}}{\text{ton coal}} \right) \times \text{process rate} \left( \frac{\text{tons coal}}{\text{hr}} \right) \\ \times \left[ 1 - \left( \frac{\text{efficiency} (\%)}{100} \right) \right]$$

$$= 0.0016 \times 2200 \times 0.3$$

$$= 1.056$$

Total controlled emissions (gms/sec)

$$= \text{total controlled emissions} \left( \frac{\text{lbs}}{\text{hr}} \right) \times \left( \frac{\text{hr}}{3600 \text{ sec}} \right) \times \left( \frac{453.6 \text{ gms}}{\text{lb}} \right)$$

$$= 0.13 \text{ gms/sec}$$

ATTACHMENT 1

## JACKSONVILLE ELECTRIC AUTHORITY - ST. JOHNS RIVER COAL TERMINAL

DUST EMISSION CALCULATIONS  
FOR  
SELF-UNLOADING VESSEL  
(FEBRUARY, 1987)

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## Summary and Conclusion:

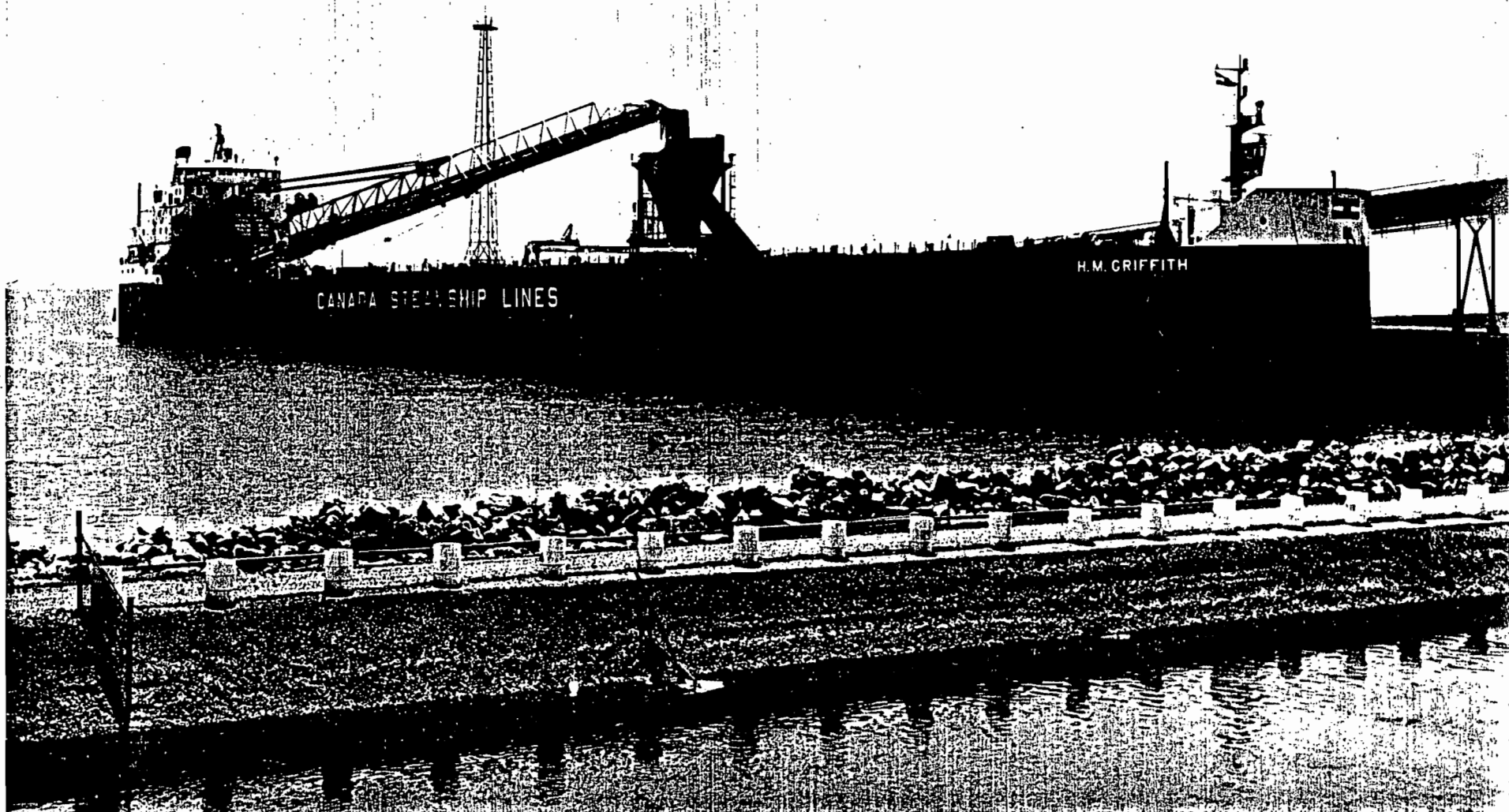
| Operation              | Pounds/<br>Hour | Gms/<br>Sec |
|------------------------|-----------------|-------------|
| Grab bucket unloading  | 1.0 (1)         | 0.13 (2)    |
| Self-unloading vessels | 1.056           | 0.13        |

NOTES: (1) Currently licensed emission limit, rounded from a calculated value of 1.06

(2) from Table 2, existing PSD permit

No significant difference in consideration of rounding error, accuracy of emission factor, accuracy of monitoring, and other factors.

Best Available Copy



DEPARTMENT OF ENVIRONMENTAL REGULATION

|                                     |         |                 |
|-------------------------------------|---------|-----------------|
| <b>ROUTING AND TRANSMITTAL SLIP</b> |         | ACTION NO       |
|                                     |         | ACTION DUE DATE |
| 1. TO: (NAME, OFFICE, LOCATION)     | Initial |                 |
| <del>Bill Thomas</del>              | Date    |                 |
| 2.                                  | Initial |                 |
| Buck Owen DER                       | Date    |                 |
| 3.                                  | Initial |                 |
| MAY 1 1987                          | Date    |                 |
| 4.                                  | Initial |                 |
| BAQM                                | Date    |                 |

REMARKS:

Has your section reviewed + commented on the attached?

From past investigations of self unloaders (Gen. Portland) they appear to be a preferable alternative to grab buckets - reduce chances of spillage & emissions from drop-transfer.

BT 5/4/87

INFORMATION

- Review & Return
- Review & File
- Initial & Forward

DISPOSITION

- Review & Respond
- Prepare Response
- For My Signature
- For Your Signature
- Let's Discuss
- Set Up Meeting
- Investigate & Report
- Initial & Forward
- Distribute
- Concurrence
- For Processing
- Initial & Return

FROM:

Buck Owen

DATE

PHONE

1.1.12

State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

| For Routing To District Offices<br>And/Or To Other Than The Addressee |                    |                |
|---|--------------------|----------------|
| To: _____   | Loctn.: _____      |                |
| To: _____   | Loctn.: _____      |                |
| To: _____   | Loctn.: _____      |                |
| From: _____   | Date: _____        |                |
| Reply Optional [ ]  | Reply Required [ ] | Info. Only [ ] |
| Date Due: _____   | Date Due: _____    |                |

TO: Buck Oven, Power Plant Siting Section

THRU: Bill Thomas<sup>BT</sup>, Bureau of Air Quality Management

THRU: Willard Hanks *whh*

FROM: Bob King *BK*

DATE: April 17, 1981

SUBJ: Comments on Sufficiency Review - JEA's St. Johns River Power Park Unit 1 and Unit 2.

1. Did JEA conduct any on-site monitoring program at Northside Site before or after the construction of Northside Unit 3? If JEA did, send us the results of the monitoring program.
2. According to the application (page 2.7-7), EPA Region IV approved the use of on-site monitoring data for baseline/background determination. We need confirmation of this approval.
3. What are the maximum sulfur dioxide and particulate matter emission rates when burning No. 2 fuel oil during start-up and low load operation of Unit 1 and 2?
4. According to the application (page 3.8-6), a small fraction of flue gas will bypass the absorbers to reheat the gases exiting the absorbers. What is maximum flow rate of the bypassing flue gas? What is the overall SO<sub>2</sub> removal efficiency including bypassed flue gas of the system?
5. Cooling towers are subject to both BACT and PSD requirements. Ambient particulate concentrations and drift impacts must be included in the application.
6. If maximum cooling tower drift is 1.5 percent of the circulating water, what is the particulate matter emission rate for each tower?
7. What is maximum particulate matter emission rate in lb/hr and tons/yr from auxiliary boiler?

BK:BT:WH:dav