

Memorandum

Florida Department of Environmental Protection

TO: Michael G. Cooke, Director
Division of Air Resource Management

THRU: *For* Trina Vielhauer, Chief *OK*
Bureau of Air Regulation

FROM: Jeff Koerner, Air Permitting North Program *JK*

DATE: April 24, 2006

SUBJECT: Final Air Permit No. 0170004-012-AC
Progress Energy Florida, Inc.
Crystal River Power Plant, Units 4 and 5
Powder River Basin Coal Blend Trial Burn

The Final Permit for this project is attached for your approval and signature. The permit authorizes the temporary trial burn of a blend of Power River Basin (PRB) coal with bituminous coal in existing Units 4 and 5 at the Crystal River Power Plant, which is located north of Crystal River and west of U.S. Highway 19 in Citrus County, Florida. The temporary project results in a minor source air construction permit and is not subject to PSD preconstruction review.

The Department distributed an "Intent to Issue Permit" package on April 6, 2006. The applicant published the "Public Notice of Intent to Issue" in the Citrus County Chronicle on April 10, 2006. The Department received the proof of publication on April 14, 2006. No petitions for administrative hearings or extensions of time to petition for an administrative hearing were filed. As described in the attached Final Determination, the applicant provided comments on one permit condition resulting in minor revisions.

Day #90 is June 24, 2006. I recommend your approval of the attached Final Permit for this project.

Attachments

Attach this card to the back of the envelope or on the front if space permits.

1. Article Addressed to:

Mr. Bernie Cumbe, Plant Manager
Progress Energy Florida
Crystal River Units 1&2
100 Central Avenue CN77
St. Petersburg, Florida 33701

1167012 Johnson 1/25
D. Is delivery address different from item 1? ☒ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number 7000 1670 0013 3110 0727
(Transfer from service label)

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

U.S. Postal Service

CERTIFIED MAIL RECEIPT

(Domestic Mail Only; No Insurance Coverage Provided)

Mr. Bernie Cumbe, Plant Manager

Postage \$

Certified Fee

Return Receipt Fee
(Endorsement Required)

Restricted Delivery Fee
(Endorsement Required)

Total Postage & Fees \$

Postmark
Here

Sent To

Mr. Bernie Cumbe, Plant Manager

Street, Apt. No., or PO Box No.

100 Central Avenue CN77

City, State, ZIP+4

St. Petersburg, Florida 33701

PS Form 3800, May 2000 See Reverse for Instructions

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit by:

Progress Energy Florida, Inc.
Crystal River Power Plant
100 Central Avenue, CN77
St. Petersburg, FL 33701


Air Permit No. 0170004-012-AC
Crystal River Power Plant
Existing Units 4 and 5
PRB Coal Blend Trial Burn
Citrus County, Florida

Authorized Representative:
Mr. Bernie Cumbie, Plant Manager

Enclosed is Final Air Permit No. 0170004-012-AC, which authorizes the temporary trial burn of a blend of Power River Basin (PRB) coal with bituminous coal in existing Units 4 and 5. These units are located at the existing Crystal River Plant, which is located north of Crystal River and west of U.S. Highway 19 in Citrus County, Florida. As noted in the attached Final Determination, only minor changes and clarifications were made. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty (30) days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.



For

Trina Vielhauer, Chief
Bureau of Air Regulation

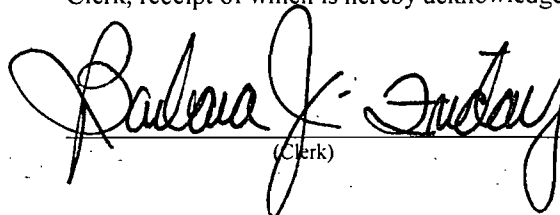
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final Permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 4/26/06 to the persons listed:

Mr. Bernie Cumbie, Progress Energy*
Mr. Dave Meyer, Progress Energy
Mr. Scott Osborne, Golder Associates Inc.
Ms. Mara Nasca, SWD Office
Mr. Jim Little, EPA Region 4 Office

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


(Clerk)

4/26/06
(Date)

FINAL DETERMINATION

PERMITTEE

Progress Energy Florida, Inc.
Crystal River Power Plant
100 Central Avenue, CN77
St. Petersburg, FL 33701

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation, Air Permitting South Program
2600 Blair Stone Road, MS #5505
Tallahassee, Florida, 32399-2400

PROJECT

Air Permit No. 0170004-012-AC
Crystal River Power Plant

Progress Energy Florida, Inc. operates the existing Crystal River Plant, which is located north of Crystal River and west of U.S. Highway 19 in Citrus County, Florida. The Crystal River Plant is an existing coal-fired power plant (SIC No. 4922). This permit authorizes the temporary trial burn of a blend of Power River Basin (PRB) coal with bituminous coal in existing Units 4 and 5.

NOTICE AND PUBLICATION

The Department distributed an "Intent to Issue Permit" package on April 6, 2006. The applicant published the "Public Notice of Intent to Issue" in the Citrus County Chronicle on April 10, 2006. The Department received the proof of publication on April 14, 2006. No petitions for administrative hearings or extensions of time to petition for an administrative hearing were filed.

COMMENTS

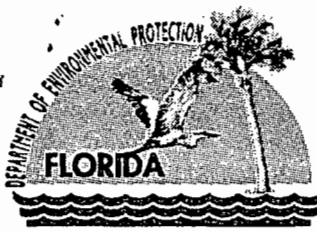
No comments on the Draft Permit were received from the public, the Department's Southwest District Office, or the EPA Region 4 Office. On April 21, 2006, the applicant provided the following comments by email.

Section 3, Condition 8: The applicant indicates that only one of the boilers may be used to test the PRB blend. Therefore, the applicant requests a revision of this condition to clarify that only a boiler that will be firing the PRB blend needs to have a baseline CO emissions test. *Response:* The Department agreed and revised Condition 8 as follows:

Emissions Testing - Baseline: Each boiler that will be firing the PRB blend shall have representative baseline emission levels for carbon monoxide (CO) based on actual test data collected when firing only the bituminous coal currently in use. Such tests shall consist of at least three runs conducted at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum heat input rate allowed by the permit. Test results shall be reported in units of ppmvd @ 7% oxygen, lb/MMBtu, and lb/hour. If such representative CO emissions data does not exist at the time of the trial burn, each boiler that will be firing the PRB blend shall be tested to determine the CO emissions. Sufficient testing shall be conducted to establish baseline emissions.

CONCLUSION

The final action of the Department is to issue the permit with the minor changes described above.



Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

PERMITTEE:

Progress Energy Florida, Inc.
Crystal River Power Plant
100 Central Avenue, CN77
St. Petersburg, FL 33701

Authorized Representative:

Mr. Bernie Cumbie, Plant Manager

Air Permit No. 0170004-012-AC
Crystal River Power Plant
Existing Units 4 and 5
PRB Coal Blend Trial Burn
Citrus County, Florida
Permit Expires: May 1, 2007

PROJECT AND LOCATION

Progress Energy Florida, Inc. operates the existing Crystal River Plant (Facility ID No. 0170004), which is located north of Crystal River and west of U.S. Highway 19 in Citrus County, Florida. The Crystal River Plant is an existing coal-fired power plant (SIC No. 4922). This permit authorizes the temporary trial burn of a blend of Power River Basin (PRB) coal with bituminous coal in existing Units 4 and 5.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to perform the proposed work in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department.

CONTENTS

- Section 1. General Information
- Section 2. Administrative Requirements
- Section 3. Emissions Units Specific Conditions
- Section 4. Appendices

Michael G. Cooke

Michael G. Cooke, Director
Division of Air Resource Management

4-26-06

(Effective Date)

"More Protection, Less Process"

Printed on recycled paper.

FACILITY AND PROJECT DESCRIPTION

The Crystal River Plant is an existing coal-fired power plant consisting of: four coal-fired fossil fuel steam generating units with electrostatic precipitators; two natural draft cooling towers (for Units 4 and 5); helper mechanical cooling towers (for Units 1, 2, and Nuclear Unit 3); ash-handling facilities, and re-locatable diesel-fired generators.

This permit authorizes the temporary trial burn of a blend of Power River Basin (PRB) subbituminous coal with bituminous coal in existing Units 4 and 5. Although the permit restricts the blend to no more than 30% PRB coal, a variety of other PRB coal blends will be tested. The two coals will be blended off-site and shipped to the plant as a premixed blend. The trial burn is limited to no more than 150,000 tons of PRB coal blend and must be completed within 90 days after first firing the PRB coal blend. Emissions and operational testing will be conducted during the trial burn. The project will primarily affect existing coal-fired Unit 4 (EU-004) and Unit 5 (EU-003) as well as the coal/ash handling and storage. No new equipment is necessary to conduct the trial burn.

REGULATORY CLASSIFICATION

Title III: The existing facility is a major source of hazardous air pollutants (HAP).

Title IV: The existing facility operates units subject to the acid rain provisions of the Clean Air Act.

Title V: The existing facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

PSD: The existing facility is a PSD-major facility in accordance with Rule 62-212.400, F.A.C.

NSPS: The existing facility operates units subject to the New Source Performance Standards of 40 CFR 60.

RELEVANT DOCUMENTS

The following relevant documents are not a part of this permit, but helped form the basis for this permitting action: the permit application and additional information received to make it complete; the draft permit package including the Department's Technical Evaluation and Preliminary Determination; publication and comments; and the Department's Final Determination. The plant currently operates under the terms and conditions of Title V air operation Permit No. 0170004-009-AV.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to construct, modify, or operate emissions units shall be submitted to the Bureau of Air Regulation of the Florida Department of Environmental Protection (DEP) at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. Copies of all such documents shall be submitted to the Compliance Authority.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Air Resource Section of the Department's Southwest District Office at 13051 N. Telecom Parkway, Temple Terrace, FL 33637-0926.
3. Appendices: The following Appendices are attached as part of this permit: Appendix A (Citation Formats), Appendix B (General Conditions), and Appendix C (Common Conditions).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.); and Title 40, Part 60 of the Code of Federal Regulations (CFR), adopted by reference in Rule 62-204.800, F.A.C. The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Title V Permit: This project authorizes limited temporary use of a fuel not currently authorized to allow for the gathering of emissions and operational data. The facility shall remain in compliance with the terms and conditions of the current Title V air operation permit. As this is a temporary authorization, an application to revise the Title V air operation permit is not required. [Rules 62-4.030, 62-4.050, 62-4.070, 62-4.220, and Chapter 62-213, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Units 4 and 5

This section addresses the following emissions units as described in the Title V air operation permit.

ID No.	Brief Description
003 and 004	Fossil fuel steam generator Unit 4 (EU-004) and Unit 5 (EU-003) are identical dry bottom wall-fired boilers rated at 760 MW (6665 MMBtu/hr). Each unit is currently authorized to fire bituminous coal, a bituminous coal and bituminous coal briquette mixture, and used oil, with No. 2 fuel oil as a startup fuel, and natural gas as a startup and low-load flame stabilization fuel. Emissions from each boiler exhaust through individual stacks that are 600 feet tall. Emissions from each boiler are controlled with a high-efficiency electrostatic precipitator.

TEMPORARY AUTHORIZATION AND RESTRICTIONS

1. PRB Coal Blend: The permittee is temporarily authorized to fire a blend of Powder River Basin (PRB) coal with bituminous coal. A variety of PRB coal blends may be tested, but the blends shall not exceed 30% PRB coal by weight. PRB coal blends shall be blended off site and delivered by ship to the plant as a premixed blend. This permit does not authorize the permanent firing of PRB coal blends. [Application No. 0170004-012-AC; Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]
2. Trial Test Burn Duration: PRB coal blends shall only be fired in existing Units 4 and 5. PRB coal blends shall be fired in a similar manner to the bituminous coal currently in use at the plant. The permittee shall provide at least a one-day advance notice (by phone, fax, or email) to the Compliance Authority prior to the initial firing of PRB coal. Once any PRB coal blend is fired, the permittee shall complete the trial burn within 90 calendar days. No more than 150,000 tons of PRB coal blend shall be burned during the trial burn. In addition, the trial burn shall be completed prior to the expiration date of this permit. The permittee shall not fire PRB coal blends either before or after the authorized trial burn period. Within five calendar days of completing the trial burn, the permittee shall notify the Compliance Authority (by phone, fax, or email) that the trial burn has been completed. *{Permitting Note: The purpose of this temporary authorization is to gather operational and emissions data related to firing PRB coal blends for the evaluation of overall impacts.}* [Application No. 0170004-012-AC; Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

EMISSIONS LIMITING AND PERFORMANCE STANDARDS

3. Performance Requirements: The permittee shall provide the Compliance Authority with a preliminary schedule for conducting the trial burn and performance tests and shall update this schedule as necessary. During the trial burn, the permittee shall comply with all current terms and conditions in Title V air operation Permit No. 0170004-009-AV. If the trial burn results in operation that is not in accordance with the conditions of the Title V permit or the test protocol, the performance testing will cease as soon as possible. The permittee shall immediately notify the Compliance Authority (by phone, fax, or email) of any non-compliance issue. The trial burn shall not resume until appropriate actions have been taken to correct the problem. [Application No. 0170004-012-AC; Rule 62-4.070(3), F.A.C.]
4. Fugitive Dust: The permittee shall take reasonable precautions to prevent fugitive dust emissions from the unloading, storage, and handling of PRB coal blends. These shall be the same reasonable precautions specified in the current Title V air operation Permit No. 0170004-009-AV to prevent fugitive dust emissions from the unloading, storage, and handling of bituminous coal currently in use at the plant. [Application No. 0170004-012-AC; Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

MONITORING AND TESTING

5. Monitoring of Operations: When firing PRB coal blends, the permittee shall conduct the following monitoring.
 - a. The permittee shall record the amount and blend ratio of each PRB coal blend delivered to the plant.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Units 4 and 5

A "certificate of analysis" (including the proximate and ultimate analysis) shall be retained for each delivery of PRB coal blend.

- b. On at least three separate days, the permittee shall take samples of the PRB coal blend being fired. A proximate and ultimate analysis shall be provided for each sample taken. Samples taken on different emissions testing days may satisfy this requirement.
- c. The permittee shall maintain daily records of the boiler operations including: the PRB blend ratio fired; the fuel mass firing rate; the heat input rate; steam production, temperature and pressure; and the MW generated.
- d. The permittee shall test the ESP fly ash for resistivity. At least two samples shall be taken on separate operating days. The samples shall be taken during the tests for particulate matter and after the boiler has fired a sufficient amount of PRB coal blend to ensure that the collected sample is representative of firing PRB coal blend. Each sample shall be analyzed for resistivity. If resistivity data is not available for baseline coal firing, at least two samples shall be taken and analyzed for resistivity when firing baseline coal for purposes of comparison.
- e. The permittee shall monitor and record the electrostatic precipitator (ESP) secondary voltage and secondary current and calculate and record the total ESP secondary power input.
- f. The permittee shall continuously monitor and record opacity, nitrogen oxides (NO_x) emissions and sulfur dioxide (SO₂) emissions with existing monitoring systems.

For comparison purposes, the permittee shall identify the current corresponding baseline monitoring values (for bituminous coal firing) or collect baseline data during the trial burn period. [Rule 62-4.070(3), F.A.C.]

6. Notifications: The permittee shall provide the Compliance Authority with a written preliminary schedule for conducting any emissions tests (by letter, fax, or email). The preliminary schedule shall be updated as necessary. The permittee shall provide the Compliance Authority with at least 5 days advance notice (by phone, fax, or email) prior to conducting any emissions tests. [Rule 62-4.070(3), F.A.C.]
7. Test Methods: Any required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1 - 4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5 or 17	Determination of Particulate Matter (PM) Emissions
6	Determination of Sulfur Dioxide (SO ₂) Emissions
7E	Determination of Nitrogen Oxide (NO _x) Emissions
9	Visual Determination of the Opacity
10	Determination of Carbon Monoxide (CO) Emissions
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.)

Tests shall also be conducted in accordance with the requirements specified in Appendix C of this permit. The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

8. Emissions Testing - Baseline: Each boiler that will be firing the PRB blend shall have representative baseline emission levels for carbon monoxide (CO) based on actual test data collected when firing only the

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Units 4 and 5

bituminous coal currently in use. Such tests shall consist of at least three runs conducted at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum heat input rate allowed by the permit. Test results shall be reported in units of ppmvd @ 7% oxygen, lb/MMBtu, and lb/hour. If such representative CO emissions data does not exist at the time of the trial burn, each boiler that will be firing the PRB blend shall be tested to determine the CO emissions. Sufficient testing shall be conducted to establish baseline emissions. *{Permitting Note: Baseline emissions data is already available for opacity, nitrogen oxides (NOx) emissions and sulfur dioxide (SO₂) based on continuous monitoring data and for particulate matter based on annual tests.}* [Rule 62-4.070(3), F.A.C.]

9. Emissions Testing - PRB Coal Blend: Each boiler shall be tested to determine emission levels of carbon monoxide (CO) and particulate matter (PM) when firing the PRB coal blend with the highest PRB coal content fired during the trial burn. Each test shall consist of three runs conducted at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum heat input rate allowed by the permit. Particulate matter (PM) tests shall include three test runs under normal test conditions including soot blowing. Test results shall be reported in units of ppmvd @ 7% oxygen (gases), lb/MMBtu, and lb/hour. During the day of each required emissions testing, the permittee shall obtain a sample of the PRB coal blend as fired. A proximate and ultimate analysis shall be provided for each sample taken. If only one boiler fires the PRB coal blend during the trial burn, that unit shall conduct two series of tests to determine emission levels of carbon monoxide (CO) and particulate matter (PM) when firing the PRB coal blend. *{Permitting Note: Emissions levels for opacity, nitrogen oxides (NOx) emissions and sulfur dioxide (SO₂) will be determined by the continuous monitoring data collected during the trial burn.}* [Rule 62-4.070(3), F.A.C.]

RECORDS AND REPORTS

10. Emissions Tests Reports: The permittee shall prepare and submit reports for all emissions tests in accordance with the requirements specified in Appendix C of this permit. For each test run, the report shall also indicate the following: the PRB blend ratio, the fuel firing rate, the heat input rate, the average ESP secondary power input, the opacity, the NOx emission rate, and the SO₂ emission rate. [Rule 62-297.310(8), F.A.C.]
11. Trial Burn Report: Within 60 days of completing the trial burn, the permittee shall submit a final report summarizing the trial burn to the Bureau of Air Regulation and the Compliance Authority. The trial burn report shall include, but not be limited to, the following information:
- Actual schedule and overall description of the trial burn;
 - Summary of PRB blends evaluated (amounts delivered; blend ratio; and proximate/ultimate analyses);
 - Discussion of operational issues of PRB coal including: coal unloading, handling, storage and firing; fugitive dust; soot blowing; ESP performance and adjustments; and ash handling and storage;
 - Comparison of baseline operations versus operation with PRB coal blend;
 - Evaluation of current equipment compatibility with PRB coal blend;
 - Summary of continuous emissions monitoring data;
 - Summary of boiler operating data;
 - Summary of emissions test results, actual test schedule, and procedures used;
 - Comparison of baseline emissions with emissions from firing PRB coal blend (short-term and long-term); and,
 - Discussion of emissions changes as described in Appendix C of 40 CFR 60.
- Rules 62-4.070(3), 62-210.200(PTE) and 62-212.400, F.A.C.

SECTION 4. APPENDICES

CONTENTS

Appendix A. Citation Formats

Appendix B. General Conditions

Appendix C. Common Conditions

SECTION 4. APPENDIX A
CITATION FORMATS

The following examples illustrate the format used in the permit to identify applicable permitting actions and regulations.

REFERENCES TO PREVIOUS PERMITTING ACTIONS

Old Permit Numbers

Example: Permit No. AC50-123456 or Air Permit No. AO50-123456

Where: "AC" identifies the permit as an Air Construction Permit
"AO" identifies the permit as an Air Operation Permit
"123456" identifies the specific permit project number

New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: "099" represents the specific county ID number in which the project is located
"2222" represents the specific facility ID number
"001" identifies the specific permit project
"AC" identifies the permit as an air construction permit
"AF" identifies the permit as a minor federally enforceable state operation permit
"AO" identifies the permit as a minor source air operation permit
"AV" identifies the permit as a Title V Major Source Air Operation Permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: "PSD" means issued pursuant to the Prevention of Significant Deterioration of Air Quality
"FL" means that the permit was issued by the State of Florida
"317" identifies the specific permit project

RULE CITATION FORMATS

Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

Example: [40 CFR 60.7]

Means: Title 40, Part 60, Section 7

SECTION 4. APPENDIX B
GENERAL CONDITIONS

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
 - a. Have access to and copy and records that must be kept under the conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of non-compliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida

SECTION 4. APPENDIX B
GENERAL CONDITIONS

Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - a. Determination of Best Available Control Technology (not applicable);
 - b. Determination of Prevention of Significant Deterioration (not applicable); and
 - c. Compliance with New Source Performance Standards (not applicable).
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - 1) The date, exact place, and time of sampling or measurements;
 - 2) The person responsible for performing the sampling or measurements;
 - 3) The dates analyses were performed;
 - 4) The person responsible for performing the analyses;
 - 5) The analytical techniques or methods used; and
 - 6) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SECTION 4. APPENDIX C
COMMON CONDITIONS

Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.

EMISSIONS AND CONTROLS

1. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
2. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
3. General Visible Emissions: No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20 percent opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]
4. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

TESTING REQUIREMENTS

5. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]
6. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]
7. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
8. Test Procedures: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C.
 - a. Required Sampling Time. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.
 - b. Minimum Sample Volume. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.

SECTION 4. APPENDIX C
COMMON CONDITIONS

- c. *Calibration of Sampling Equipment.* Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.

[Rule 62-297.310(4), F.A.C.]

9. Determination of Process Variables

- a. *Required Equipment.* The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- b. *Accuracy of Equipment.* Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

10. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C.
11. Test Notification: The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]
12. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]
13. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
1. The type, location, and designation of the emissions unit tested.
 2. The facility at which the emissions unit is located.
 3. The owner or operator of the emissions unit.
 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
 8. The date, starting time and duration of each sampling run.
 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.

SECTION 4. APPENDIX C
COMMON CONDITIONS

10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

RECORDS AND REPORTS

14. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]



Progress Energy

RECEIVED

APR 14 2006

BUREAU OF AIR REGULATION

April 13, 2006

Mr. Jeff Koerner
DEP/DARM
North Permitting Section
Division of Air Resource Management
2600 Blair Stone Road MS 5500
Tallahassee, Florida 32399-2400

Re: Crystal River Power Plant – PRB Coal Blend Trial Burn Construction Permit –
Affidavit of Publication

Dear Mr. Koerner:

In accordance with Ms. Trina Vielhauer's letter to Mr. Cumbie dated April 5, 2006, we have published the public notice in the Citrus County Chronicle on April 10, 2006.

Attached is the Affidavit of Publication.

If you have any questions, please contact me at (727) 820-5295. Thank you very much for processing the Construction permit.

Best Regards,

Dave Meyer
Senior Environmental Specialist

XC: Bernie Cumbie

Attachment

Before the undersigned authority personally appeared

Dian Chin Quee

Of the Citrus County Chronicle, a newspaper published daily at Crystal River, in Citrus County, Florida, that the attached copy of advertisement being a public notice in the matter of the

428-0410 MCRN PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT Florida Department of Environmental Protection Draft Air Permit No. 0170004-012-AC Progress Energy Florida, Inc. Crystal River Power Plant Powder River Basin Coal Blend Trial Burn Citrus County,

Court, was published in said newspaper in the issues of April 10th, 2006,

Affiant further says that the Citrus County Chronicle is a Newspaper published at Crystal River in said Citrus County, Florida, and that the said newspaper has heretofore been continuously published in Citrus County, Florida, each week and has been entered as second class mail matter at the post office in Inverness in said Citrus County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he/she 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 the said newspaper.

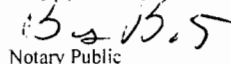


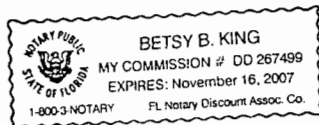
The forgoing instrument was acknowledged before me

This 10th day of April, 2006

By: Dian Chin Quee

who is personally known to me and who did take an oath.


Notary Public




are dry-bottom, wall-fired units manufactured by Combustion Engineering. Each unit currently fires bituminous coal as the primary fuel with a maximum heat input capacity of 6665 MMbtu per hour (760 MW). The applicant proposes a temporary trial burn to fire a blend of subbituminous Powder River Basin coal (PRB) and bituminous coal in existing Units 4 and 5. According to the original power plant site certification, these units were originally designed to fire PRB coal blends. Although a variety of blends may be tested, blends will contain no more than 30% PRB coal by weight. The two coals will be blended off-site and shipped to the plant as a premixed blend. No more than 150,000 tons of PRB coal blends will be delivered and fired during the trial burn. The trial burn will be completed within 90 calendar days of first firing PRB coal. The applicant indicates that the firing of the proposed PRB coal blends will likely result in carbon monoxide

OPEN SATURDAYS 1006 Princeton Ln. \$139,900 3/2/2, HW 2,000 sq. ft. under roof upgraded kitchen & bath, (352) 563-4169 SELE YOUR HOME! Place a Chance Classified ad. 6 lines, 30 days \$49.95 Call 726-1441 663-5966 Non-Refundable Private Party Only Some Restrictions (352) 795-0000	OPEN HOUSE 4/9-14 New S.S. appl. & tile, H. Ceiling Hike: 2/2/1, of PRICED TO SELL Call for details 3972.99 Full Service Listing Why Pay More?? 25 yrs. Experience Call & Compare \$150+ Million Sold!!! Phase Call for Details Listings & Home Market Analysis BON & KAYNA NEITZ BROKERS/REALTORS CITRUS REALTY GROUP (352) 795-0000
NEED A MORTGAGE? & bank won't help? Self-employed all credit issues bankruptcy OK Associate Mortgage Call M-F 352-344-0571	FREE Home Warranty Policy when listing your house with The Max R. Max Sims. LTC, GRI, AHWI Broker Associate (352) 527-1655 Clement & Clement 352-228-3908 Call
INVERNESS GOLF & COUNTRY CLUB 3/2/2 On Your Lot, \$110,900. 3/2/1 w/ Laundry. Athens Construction 9/21 w/ Laundry. UC # CB0059685 352-637-4138	HIGHLANDS 3/2/2 (352) 726-2361 106 Cabot St. REDUCED \$135,900 Close to everything! Immediate 2/2/1 Must See Great Location 1-352-601-3843
HOME FOR SALE \$189,000 (352) 726-5275 5435 S. Bristol Ter. built '99 Great cond. floor, screen porch, split plan, wood & tile privacy fence, shed. 1/2 acre wooded lot.	FREE Home Warranty Policy when listing your house with The Max R. Max Sims. LTC, GRI, AHWI Broker Associate (352) 527-1655 Clement & Clement 352-228-3908 Call
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Florida Department of Environmental Protection

Memorandum

TO: Trina Vielhauer, Chief
Bureau of Air Regulation

FROM: Jeff Koerner, Air Permitting North Program 

DATE: April 4, 2006

SUBJECT: Draft Air Permit No. 0170004-012-AC
Progress Energy Florida, Inc.
Crystal River Power Plant, Units 4 and 5
Powder River Basin Coal Blend Trial Burn

Attached for your review are the following items:

- Intent to Issue Permit and Public Notice Package;
- Technical Evaluation and Preliminary Determination;
- Draft Permit; and
- PE Certification

The draft permit authorizes the temporary trial burn of a blend of Power River Basin (PRB) coal with bituminous coal in existing Units 4 and 5 at the Crystal River Power Plant, which is located north of Crystal River and west of U.S. Highway 19 in Citrus County, Florida. The Technical Evaluation and Preliminary Determination provides a detailed description of the project, rule applicability, and emissions standards. The P.E. certification briefly summarizes the proposed project. Day #74 is May 18, 2006. I recommend your approval of the attached Draft Permit for this project.

Attachments

P.E. CERTIFICATION STATEMENT

PERMITTEE

Progress Energy Florida, Inc.
Crystal River Power Plant
100 Central Avenue CX1B
St. Petersburg, FL 33701

Air Permit No. 0170004-012-AC
Crystal River Power Plant
Existing Units 4 and 5
PRB Coal Blend Trial Burn
Citrus County, Florida

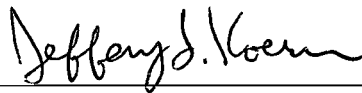
PROJECT DESCRIPTION

Units 4 and 5 at the existing Crystal River Plant are dry-bottom, wall-fired units manufactured by Combustion Engineering. Each unit currently fires bituminous coal as the primary fuel with a maximum heat input capacity of 6665 MMBtu per hour (760 MW). The applicant proposes a temporary trial burn to fire a blend of subbituminous Powder River Basin coal (PRB) and bituminous coal in existing Units 4 and 5. According to the original power plant site certification, these units were originally designed to fire PRB coal blends. Although a variety of blends may be tested, blends will contain no more than 30% PRB coal by weight. The two coals will be blended off-site and shipped to the plant as a premixed blend. No more than 150,000 tons of PRB coal blends will be delivered and fired during the trial burn. The trial burn will be completed within 90 calendar days of first firing PRB coal.

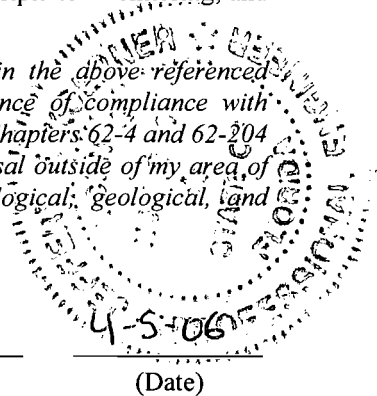
The applicant indicates that the firing of the proposed PRB coal blends will likely result in carbon monoxide (CO), nitrogen oxides (NO_x), particulate matter (PM/PM₁₀), sulfur dioxide (SO₂) and volatile organic compounds (VOC) emissions comparable to that of the bituminous coal currently being fired. Based on standard EPA emission factors for bituminous and subbituminous coals, the firing of 150,000 tons of PRB coal blend will result in the following estimated potential emissions increases as a result of the project: 3 tons of CO; 3 tons of PM; 1 ton of PM₁₀; 8 tons of SO₂; and less than 1 ton of VOC. NO_x emissions may decrease slightly (-21 tons). These predicted emissions increases are much less than the PSD significant emission rates. Therefore, this temporary project is not subject to PSD preconstruction review.

The boilers will continue to comply with all conditions of the current Title V air operation permit. Each boiler will be continuously monitored for opacity as well as NO_x and SO₂ emissions. Representative tests will be conducted for CO and particulate matter emissions. The draft permit includes requirements for: trial burn notification and schedule; PRB coal blend analyses and record keeping; boiler monitoring; electrostatic precipitator monitoring; and the submittal of a trial burn report.

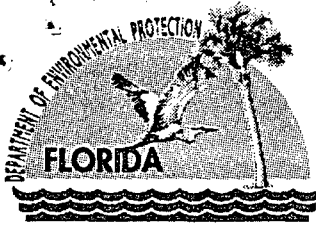
***I HEREBY CERTIFY** that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including, but not limited to, the electrical, mechanical, structural, hydrological, geological, and meteorological features).*



Jeffery F. Koerner, P.E.
Registration Number: 49441



(Date)



Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

April 5, 2006

Mr. Bernie Cumbie, Plant Manager
Crystal River Power Plant
Progress Energy Florida, Inc.
100 Central Avenue, CN77
St. Petersburg, FL 33701

Re: Air Construction Permit No. 0170004-012-AC
Crystal River Power Plant
Existing Units 4 and 5
PRB Coal Blend Trial Burn

Dear Mr. Meyer:

On March 6, 2006, you submitted an application requesting a trial burn to fire a blend of sub-bituminous Powder River Basin coal (PRB) with bituminous coal in existing Units 4 and 5 at the Crystal River Power Plant, which is located north of Crystal River and west of U.S. Highway 19 in Citrus County, Florida. The Department has reviewed your request and intends to issue an air construction permit authorizing the temporary trial burn. Enclosed are the following documents: "Technical Evaluation and Preliminary Determination", "Draft Permit", "Written Notice of Intent to Issue Air Permit", and "Public Notice of Intent to Issue Air Permit".

The "Technical Evaluation and Preliminary Determination" summarizes the Permitting Authority's technical review of the application and provides the rationale for making the preliminary determination to issue a Draft Permit. The proposed "Draft Permit" includes the specific conditions that regulate the emissions units covered by the proposed project. The "Written Notice of Intent to Issue Air Permit" provides important information regarding: the Permitting Authority's intent to issue an air permit for the proposed project; the requirements for publishing a Public Notice of the Permitting Authority's intent to issue an air permit; the procedures for submitting comments on the Draft Permit; the process for filing a petition for an administrative hearing; and the availability of mediation. The "Public Notice of Intent to Issue Air Permit" is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project.

If you have any questions, please contact the Project Engineer, Jeff Koerner, at 850/921-9536.

Sincerely,

Trina Vielhauer, Chief
Bureau of Air Regulation

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

*In the Matter of an
Application for Air Permit by:*

Crystal River Power Plant
Progress Energy Florida, Inc.
100 Central Avenue, CN77
St. Petersburg, FL 33701

Air Permit No. 0170004-012-AC
Crystal River Power Plant
Existing Units 4 and 5
PRB Coal Blend Trial Burn
Citrus County, Florida

Authorized Representative:
Mr. Bernie Cumbie, Plant Manager

Facility Location: Progress Energy Florida, Inc. operates the existing Crystal River Power Plant, which is located north of Crystal River and west of U.S. Highway 19 in Citrus County, Florida.

Project: The applicant proposes a temporary trial burn to fire a blend of subbituminous Powder River Basin coal (PRB) and bituminous coal. Details of the project are provided in the application and the enclosed "Technical Evaluation and Preliminary Determination".

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address or phone number listed above.

Notice of Intent to Issue Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Public Notice: Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed "Public Notice of Intent to Issue Air Permit" (Public Notice). The Public Notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The newspaper used must meet the requirements of Sections 50.011 and 50.031, F.S. in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Permitting Authority at above address or phone number. Pursuant to Rule 62-110.106(5), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within seven (7) days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of fourteen (14) days from the date of publication of the Public Notice. Written comments must be provided to the Permitting Authority at the above address. Any written comments filed will be made available for public inspection. If written comments received result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice.

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this Written Notice of Intent to Issue Air Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen (14) days of publication of the attached Public Notice or within fourteen (14) days of receipt of this Written Notice of Intent to Issue Air Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when each petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Written Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

Executed in Tallahassee, Florida.



Trina Vielhauer, Chief
Bureau of Air Regulation

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this "Written Notice of Intent to Issue Air Permit" package (including the Public Notice, the Technical Evaluation and Preliminary Determination, and the Draft Permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 4/6/06 to the persons listed below.

Mr. Bernie Cumbie, Progress Energy*
Mr. Dave Meyer, Progress Energy
Mr. Scott Osborne, Golder Associates Inc.
Ms. Mara Nasca, SWD Office
Mr. Jim Little, EPA Region 4 Office

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

Paula J. Sunday 4/6/06
(Clerk) (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection

Draft Air Permit No. 0170004-012-AC

Progress Energy Florida, Inc.
Crystal River Power Plant
Powder River Basin Coal Blend Trial Burn
Citrus County, Florida

Applicant: The applicant for this project is Progress Energy Florida, Inc. The applicant's authorized representative and mailing address is: Mr. Bernie Cumbie; Plant Manager of Crystal River Power Plant; Progress Energy Florida, Inc.; 100 Central Avenue, CN77; St. Petersburg, FL 33701.

Facility Location: Progress Energy Florida, Inc. operates the existing Crystal River Power Plant, which is located on Power Line Road north of Crystal River and west of U.S. Highway 19 in Citrus County, Florida.

Project: Units 4 and 5 at the existing Crystal River Plant are dry-bottom, wall-fired units manufactured by Combustion Engineering. Each unit currently fires bituminous coal as the primary fuel with a maximum heat input capacity of 6665 MMBtu per hour (760 MW). The applicant proposes a temporary trial burn to fire a blend of subbituminous Powder River Basin coal (PRB) and bituminous coal in existing Units 4 and 5. According to the original power plant site certification, these units were originally designed to fire PRB coal blends. Although a variety of blends may be tested, blends will contain no more than 30% PRB coal by weight. The two coals will be blended off-site and shipped to the plant as a premixed blend. No more than 150,000 tons of PRB coal blends will be delivered and fired during the trial burn. The trial burn will be completed within 90 calendar days of first firing PRB coal.

The applicant indicates that the firing of the proposed PRB coal blends will likely result in carbon monoxide (CO), nitrogen oxides (NOx), particulate matter (PM/PM₁₀), sulfur dioxide (SO₂) and volatile organic compounds (VOC) emissions comparable to that of the bituminous coal currently being fired. Based on standard EPA emission factors for bituminous and subbituminous coals, the firing of 150,000 tons of PRB coal blend will result in the following estimated potential emissions increases as a result of the project: 3 tons of CO; 3 tons of PM; 1 ton of PM₁₀; 8 tons of SO₂; and less than 1 ton of VOC. NOx emissions may decrease slightly. These predicted emissions increases are much less than the PSD significant emission rates. Therefore, this temporary project is not subject to PSD preconstruction review.

The boilers will continue to comply with all conditions of the current Title V air operation permit. Each boiler will be continuously monitored for opacity as well as NOx and SO₂ emissions. Representative tests will be conducted for CO and particulate matter emissions. The draft permit includes requirements for: trial burn notification and schedule; PRB coal blend analyses and record keeping; boiler monitoring; electrostatic precipitator monitoring; and the submittal of a trial burn report.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address or phone number listed above.

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of

(Public Notice to be Published in the Newspaper)

proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of fourteen (14) days from the date of publication of this Public Notice. Written comments must be provided to the Permitting Authority at the above address. Any written comments filed will be made available for public inspection. If written comments received result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within fourteen (14) days of publication of this Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner; the name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial rights will be affected by the agency determination; (c) A statement of how and when the petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Public Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available for this proceeding.

SENDER: COMPLETE THIS SECTION

- Complete Items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Bernie Cumble, Plant Manager
Progress Energy Florida
Crystal River Units 1&2
100 Central Avenue CN77
St. Petersburg, Florida 33701

2. Article Number

(Transfer from service label)

7005 1160 0004 3034 3984

PS Form 3811, February 2004

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102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Kevin Johnson*

- ☒ Agent
☐ Addressee

B. Received by (Printed Name)

Kevin Johnson

C. Date of Delivery

4-10

- D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

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Mr. Bernie Cumble, Plant Manager

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Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark
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Mr. Bernie Cumble, Plant Manager

Street, Apt. No.,

or PO Box No. 100 Central Avenue CN77

City, State, ZIP+4

St. Petersburg, Florida 33701

PS Form 3800, June 2002

See Reverse for Instructions

7005 1160 0004 3034 3984

**TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION**

PROJECT

Draft Air Construction Permit No. 0170004-012-AC
Progress Energy - Crystal River Power Plant
Powder River Basin Coal Blend Trial Burn

COUNTY

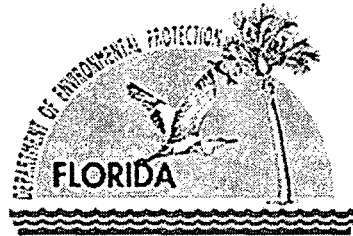
Citrus County, Florida

APPLICANT

Progress Energy Florida, Inc.
Crystal River Power Plant
100 Central Avenue, CN77
St. Petersburg, FL 33701

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
Air Permitting North Program



April 4, 2006

{Filename: TEPD - 0170004-012-AC}

1. GENERAL PROJECT INFORMATION

Facility Description and Location

Progress Energy operates the existing coal-fired Crystal River Power Plant (SIC No. 4911), which is located on Power Line Road north of Crystal River and west of U.S. Highway 19 in Citrus County, Florida. The UTM coordinates are Zone 334.3 km East, and 32.04.5 km North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to a National Ambient Air Quality Standard (NAAQS). This facility consists of: four coal-fired fossil fuel steam generating units with electrostatic precipitators; two natural draft cooling towers for Units 4 and 5; helper mechanical cooling towers for Units 1, 2 and Nuclear Unit 3; ash-handling facilities, and relocatable diesel-fired generators.

Regulatory Categories

Title III: The facility is a major source of hazardous air pollutants (HAP).

Title IV: The facility operates units subject to the acid rain provisions of the Clean Air Act.

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

PSD: The facility is a PSD-major facility pursuant to Rule 62-212.400, F.A.C.

NSPS: The facility operates units subject to the New Source Performance Standards of 40 CFR 60.

Project Description

Units 4 and 5 are dry-bottom, wall-fired units manufactured by Combustion Engineering and each rated at 760 MW with a maximum heat input rate of 6665 MMBtu per hour. The units are authorized to fire bituminous coal, a bituminous coal and bituminous coal briquette mixture, used oil, No. 2 fuel oil as a startup fuel, and natural gas as a startup and low-load flame stabilization fuel. Exhaust gases from each unit exit a stack that is 600 feet tall.

On March 6, 2006, the Department received an application requesting a trial burn for a blend of up to 30% sub-bituminous Powder River Basin coal (PRB) with existing bituminous coal. The plant proposes to burn 9-10 barge loads of blended coal (approximately 150,000 tons, total) in Units 4 and 5. A variety of blends may be tested. The two coals will be blended off-site and shipped to the plant as a premixed blend.

Each boiler could fire approximately 300 tons of PRB coal blend based on: a blend of 70% bituminous coal with 30% PRB coal; a heating value of 11,117 Btu/lb; and the maximum heat input rate for the unit. The proposed amount of PRB coal blend would be fired for approximately 250 hours per boiler at full load conditions. At this rate, it would take approximately 11 days with both boilers operating at full load to burn the entire PRB coal blend. The applicant proposes a 90-day trial burn period to provide flexibility for the testing schedule and barge deliveries.

The applicant indicates that the firing of the proposed PRB coal blend will likely result in: CO and VOC emissions comparable to current coal firing; SO₂ emissions comparable or lower than current coal firing; NO_x emissions comparable or lower than current coal firing; and PM/PM₁₀ emissions comparable to current coal firing (fugitives addressed by off-site blending).

The plant will continue to comply with all conditions of the current Title V air operation permit. For the duration of the trial burn, COMS/CEMS data will be monitored and recorded for opacity as well as NO_x and SO₂ emissions. An emissions test (EPA Method 5 or 17) will be conducted for particulate matter emissions. Daily records of the of the boiler operations when firing the PRB coal blend will be maintained and reported (i.e., fuel firing rates and heat input rates). If the trial burn results in operation not in accordance with the conditions of the permit or test protocol, the performance testing will cease as soon as possible. The trial burn will not resume until appropriate actions have been taken to correct the problem. A test report will be submitted within 45 days of completing the trial burn.

2. APPLICABLE REGULATIONS

State Regulations

This project is subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The Florida Statutes authorize the Department of Environmental Protection to establish rules and regulations regarding air quality as part of the Florida Administrative Code (F.A.C.). This project is subject to the applicable rules and regulations defined in the following Chapters of the Florida Administrative Code: 62-4 (Permitting Requirements); 62-204 (Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference); 62-210 (Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms); 62-212 (Preconstruction Review, PSD Review and BACT, and Non-attainment Area Review and LAER); 62-213 (Title V Air Operation Permits for Major Sources of Air Pollution); 62-296 (Emission Limiting Standards); and 62-297 (Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures).

Federal Regulations

This project will not impose or revise any applicable federal regulations.

General PSD Applicability

The Department regulates major air pollution sources in accordance with Florida's Prevention of Significant Deterioration (PSD) program, as approved by the EPA in Florida's State Implementation Plan and defined in Rule 62-212.400, F.A.C. A PSD review is required in areas currently in attainment with the state and federal Ambient Air Quality Standards (AAQS) or areas designated as "unclassifiable" for a given pollutant. A new facility is considered "major" with respect to PSD if it emits or has the potential to emit: 250 tons per year or more of any regulated air pollutant, or 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the 28 PSD Major Facility Categories, or 5 tons per year of lead.

For new projects at PSD-major sources, each regulated pollutant is reviewed for PSD applicability based on emissions thresholds known as the Significant Emission Rates defined Rule 62-210.200, F.A.C. Pollutant emissions from the project exceeding these rates are considered "significant" and the applicant must employ the Best Available Control Technology (BACT) to minimize emissions of each such pollutant and evaluate the air quality impacts. Although a facility may be "major" with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

3. DEPARTMENT REVIEW

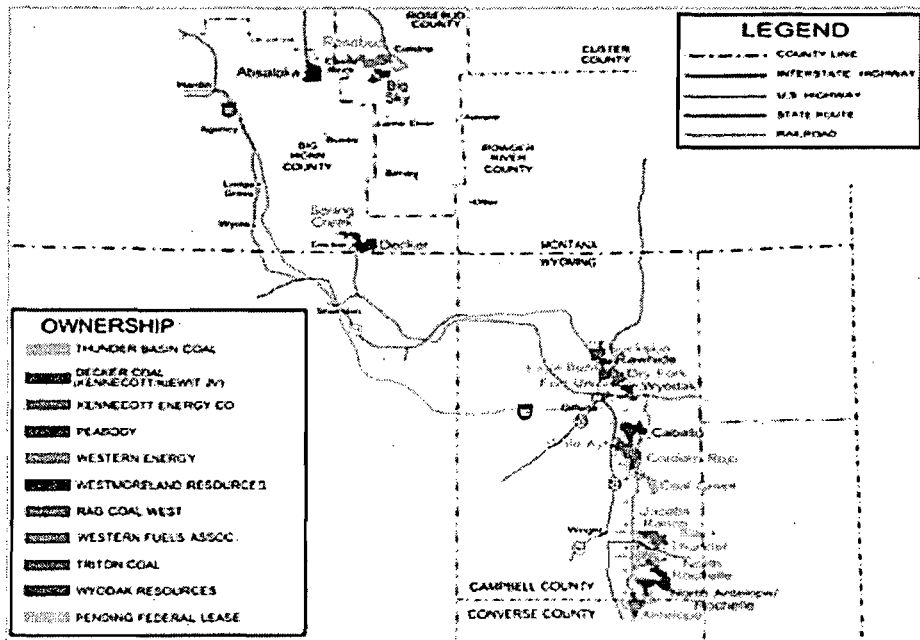
What is "Powder River Basin (PRB)" coal?¹

Powder River Basin (PRB) coal is named after the geographic region where it is mined. It includes parts of southeast Montana and northeast Wyoming and covers about 120 miles east-to-west and 200 miles north-to-south. The basin is so named because it is drained by the Powder River. The area consists of rolling grasslands with an arid climate and is sparsely populated. Figure 3.1 on the following page shows a general map of this region.

The Powder River Basin is one of the largest sources of coal mined in the United States. The relatively low sulfur and ash content of PRB coal makes it popular. In recent years, over 350 million tons of coal have been mined annually. Much of the PRB coal is transported by rail to fire power plants in the Midwest. Table 3A on the following page compares the proximate and ultimate analyses of an Appalachian coal with those of a blend of 30% PRB coal / 70% Appalachian coal.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Figure 3.1 Powder River Basin. (Power Magazine; Oct. 2003)¹



Courtesy: RAG American Coal Holding Inc.

Table 3A. Coal Analyses (As Received)²

Parameter	Appalachian Coal	PRB Coal	70% / 30% PRB Coal Blend
Proximate Analysis			
% Moisture	7.97	26.47	13.52
% Ash	10.25	6.12	8.91
% Volatile Matter	28.83	39.47	32.89
% Fixed Carbon	52.91	27.94	44.68
Ultimate Analysis			
% Moisture	7.97	26.47	13.52
% Carbon	65.14	49.47	61.16
% Hydrogen	4.66	3.67	4.4
% Nitrogen	0.98	0.69	0.89
% Chlorine	0.08	0.01	0.06
% Sulfur	0.73	0.24	0.56
% Ash	10.25	6.12	8.91
% Oxygen	10.19	12.83	10.50
Heating Value, Btu/lb	12,239	8692	11,117
Trace Metals			
Arsenic, ppm	3.39	0.25	2.45
Lead, ppm	6.41	1.11	4.82
Mercury, ppm	0.10	0.02	0.08

What are the disadvantages of firing PRB coal? ¹

Compared to most eastern coals, PRB coal: has a higher moisture content; is more friable; has a lower heating value per pound; and has a lower ash-softening temperature. These characteristics generally mean more fouling and slagging of the boiler surfaces as well as fugitive dust and fire control problems. Some of these problems may be mitigated by the relatively low blending rates proposed in the application. However, some blended coals may have chemical interactions leading to corrosion and additional tube wastage.

What are the advantages of firing PRB coal? ¹

As shown above in Table 3A, PRB coal often contains lower sulfur, which can be beneficial when trying to lower sulfur dioxide emissions. In addition, the higher moisture content may help to lower NOx emissions. However, the main attraction is the much lower cost, even considering that PRB coal must be transported long distances from its origin. The following figure provides a “delivered cost” comparison with other coals.

Figure 3.2 2002 Average Prices and Specifications of Coal Delivered to Eastern Utilities
(Power Magazine; October 2003)

Table 2. 2002 average prices and specs of coal delivered to eastern utilities

Mine/region	Delivered cost \$/mmBtu	Heating value Btu/lb	Sulfur content lb/mmBtu
Central Appalachia	1.53	12,414	1.49
Southern PRB	1.064	8,763	0.61
Illinois Basin	1.12	11,262	4.40
Northern Appalachia: Northeast	1.16	12,532	3.67
Northern Appalachia: Ohio	1.106	11,997	5.57
Southern Appalachia	1.62	12,071	2.06
Central Rockies	1.474	11,872	0.94

As shown in the above table, the delivered cost of PRB coal is approximately 30% less than other western coals and approximately 35% less than some eastern coals.

What are the expected emissions impacts from firing PRB coal?

The plant currently fires an eastern Appalachian coal, which is a bituminous coal. PRB coal is a subbituminous coal. To estimate impacts from the trial project, the Department used standard EPA emission factors for bituminous and subbituminous coals. The following table provides a comparison summary of the expected emissions. For full details of the comparison, see the Attachments at the end of this Technical Evaluation and Preliminary Determination.

Table 3B. Emissions Comparison

Pollutant	lb/ton		lb/hour		lb/MMBtu		tons/trial		Difference tons/trial
	Bit.	Blend	Bit.	Blend	Bit.	Blend	Bit.	Blend	
CO	0.50	0.50	136.1	149.9	0.020	0.022	34.1	37.5	3.4
NOx	12.00	10.62	3267.4	3183.5	0.490	0.478	817.5	796.5	-21.0
PM	0.82	0.79	223.3	235.9	0.033	0.035	55.9	59.0	3.1
PM10	0.20	0.19	54.5	57.3	0.008	0.009	13.6	14.3	0.7
SO2	27.70	25.27	7542.3	7575.1	1.132	1.137	1887.0	1895.3	8.3
VOC	0.06	0.06	16.3	18.0	0.002	0.003	4.1	4.5	0.4

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Notes:

1. Emissions are based on EPA's general emission factors for firing bituminous and subbituminous coals in dry bottom, wall-fired boilers. See Tables 1.1-3, 1.1-4, 1.1-19 in EPA's emission factor reference document (AP-42).³
2. PRB coal blend consists of 30% subbituminous coal and 70% bituminous coal.
3. Total emissions from the project (tons/trial) are based on firing 150,000 tons of PRB blended coal.²
4. For comparison purposes, an equivalent amount of bituminous coal based on representative heating values would be 136,249 tons.

Based on these "average" emissions factors, the predicted differences in actual emissions are very small and impacts from the temporary project will be minimal. The estimated emissions increased will be well below the PSD significant emissions rates. Therefore, the project is not subject to PSD preconstruction review.

Conclusion

The applicant's request for a temporary trial burn to gather emissions and operational data is acceptable and is not reasonably expected to result in PSD-significant emissions increases. The draft permit includes the following requirements:

- Provide a preliminary schedule for conducting the trial burn.
- Record the amount and blend ratio of PRB coal blend delivered.
- Retain a "certificate of analysis" for each shipment (proximate and ultimate analysis).
- Take actual samples of the PRB coal blend and analyze (proximate and ultimate analyses).
- Finish trial burn within 90 days of initial firing of the PRB coal blend.
- Fire no more than 150,000 tons of PRB coal blend during the authorized trial burn period.
- Comply with all requirements in current Title V air operation permit. If the trial burn results in operation not in accordance with the conditions of the permit or test protocol, the performance testing will cease as soon as possible. The trial burn shall not resume until appropriate actions have been taken to correct the problem.
- Conduct emissions tests for each boiler at permitted capacity (3 runs each) to determine CO and particulate matter emissions when firing the blend with the highest PRB coal percentage delivered during the trial burn. VOC emissions are typically very low for these types of units and VOC tests will not be required. Instead, CO emissions test data will provide information on the relative combustion efficiency of the units.
- Maintain records of the daily boiler operations when firing the PRB coal blend (i.e., fuel firing rates and heat input rates).
- Continuously monitor and record opacity, NOx emissions, and SO2 emissions with existing monitoring systems when firing the PRB coal blend.
- Sample and analyze fly ash resistivity for baseline versus PRB coal firing. (Different coals have different compositions, which can lead to changes in fly ash resistivity. In turn, this can result in less control of particulate matter from an existing electrostatic precipitator.)
- Evaluate the performance of the existing electrostatic precipitators (ESPs). Monitor the total ESP secondary power input. Identify any adjustments or improvements that may be necessary.
- For comparison purposes, identify the current corresponding baseline monitoring values (for firing only bituminous coal) or collect baseline data during the trial burn period.
- Submit of a final report summarizing the trial burn.

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions. Jeff Koerner is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

5. REFERENCES

- ¹ Article, "Burning PRB Coal", by Dr. Robert Peltier, P.E. and Ken Wicker, POWER Magazine (powermag.platts.com), October 2003.
- ² Air Permit Application No. 0170004-012-AC, Progress Energy Florida, Inc.'s Crystal River Power Plant, Request for Trial Burn to Fire Powder River Basin Coal Blended with Appalachian Coal, March 2006.
- ³ "Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (AP-42)", Section 1.1 Bituminous and Subbituminous Coal Combustion (dry bottom, wall-fired boilers), U.S. Environmental Protection Agency, September 1998.

Progress Energy - Crystal River Units 4 and 5
Project: Trial Burn of PRB Coal Blend
Project No. 0170004-012-AC
ATTACHMENT A-1

Estimated Emissions for Trial Project
Based on AP-42 Emission Factors for Bituminous and Subbituminous Coals

Pollutant	lb/ton			lb/hour			lb/MMBtu		
	Bit.	Sub.	Blend	Bit.	Sub.	Blend	Bit.	Sub.	Blend
CO	0.50	0.50	0.50	136.1	191.7	149.9	0.020	0.029	0.022
NOx	12.00	7.40	10.62	3267.4	2837.1	3183.5	0.490	0.426	0.478
PM	0.82	0.71	0.79	223.3	272.2	235.9	0.033	0.041	0.035
PM ₁₀	0.20	0.17	0.19	54.5	65.2	57.3	0.008	0.010	0.009
SO ₂ ^a	27.70	19.60	25.27	7542.3	7514.6	7575.1	1.132	1.127	1.137
VOC	0.06	0.06	0.06	16.3	23.0	18.0	0.002	0.003	0.003

"Blend" is a coal consisting of 70% bituminous coal blended with 30% bituminous coal.

- a. The factor for bituminous coal is 10A and the factor for subbituminous coal is 2.4A. The fuel ash content (A) for bituminous coal is assumed at 10.25% and for subbituminous coal at 8.91% sulfur by weight. Assumed 99.2% control by ESP.
- b. The factor for bituminous coal is 38S and the factor for subbituminous coal is 35S. The fuel sulfur content (S) for bituminous coal is assumed at 0.73% and for subbituminous coal at 0.56% sulfur by weight.
- c. Emission factors are from AP-42: Table 1.1-3 (CO, NOx, and SO₂); Table 1.1-4 (PM and PM₁₀); and Table 1.1-19 (VOC).
Reference: EPA's "Compilation Of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources, (AP-42)"; Section 1.1; Bituminous and Subbituminous Coal Combustion; dry bottom, wall-fired boilers; 9/98

	MMBtu/hr	Btu/lb	ton/hour	
Bituminous	6665	12239	272.29	<<
Subbituminous	6665	8692	383.40	<<
70%/30% Blend	6665	11117	299.77	<<

Coal firing rates based on maximum heat input rate and fuel heating values.

Progress Energy - Crystal River Units 4 and 5
Project: Trial Burn of PRB Coal Blend
Project No. 0170004-012-AC
ATTACHMENT A-2

Total Emissions Estimated for Trial Project

Pollutant	Bituminous		70%/30% PRB Blend		Difference tons/trial
	EF - lb/ton	tons/trial	EF - lb/ton	tons/trial	
CO	0.50	34.1	0.50	37.5	3.4
NOx	12.00	817.5	10.62	796.5	-21.0
PM	0.82	55.9	0.79	59.0	3.2
PM ₁₀	0.20	13.6	0.19	14.3	0.7
SO ₂ ^a	27.70	1,887.0	25.27	1,895.3	8.2
VOC	0.06	4.1	0.06	4.5	0.4

- a. The factor for bituminous coal is 10A and the factor for subbituminous coal is 2.4A. The fuel ash content (A) for bituminous coal is assumed at 10.25% and for subbituminous coal at 8.91% sulfur by weight. Assumed 99.2% control by ESP.
- b. The factor for bituminous coal is 38S and the factor for subbituminous coal is 35S. The fuel sulfur content (S) for bituminous coal is assumed at 0.73% and for subbituminous coal at 0.56% sulfur by weight.
- c. Emission factors are from AP-42: Table 1.1-3 (CO, NOx, and SO₂); Table 1.1-4 (PM and PM₁₀); and Table 1.1-19 (VOC).
Reference: EPA's "Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources, (AP-42)"; Section 1.1; Bituminous and Subbituminous Coal Combustion; dry bottom, wall-fired boilers; 9/98
- d. Total emissions from the project (tons/trial) are based on firing 64,000 tons of PRB blended coal.

	MMBtu/hr	Btu/lb	tons/trial	
Bituminous	6665	12,239	136,249	<-- Amount of bituminous coal that would have been fired.
70%/30% Blend	6665	11,117	150,000	<-- Requested amount of PRB blended coal

PERMITTEE:

Progress Energy Florida, Inc.
Crystal River Power Plant
100 Central Avenue, CN77
St. Petersburg, FL 33701

Authorized Representative:

Mr. Bernie Cumbie, Plant Manager

Air Permit No. 0170004-012-AC Crystal River Power Plant Existing Units 4 and 5 PRB Coal Blend Trial Burn Citrus County, Florida Permit Expires: {1 year}

PROJECT AND LOCATION

Progress Energy Florida, Inc. operates the existing Crystal River Plant (Facility ID No. 0170004), which is located north of Crystal River and west of U.S. Highway 19 in Citrus County, Florida. The Crystal River Plant is an existing coal-fired power plant (SIC No. 4922). This permit authorizes the temporary trial burn of a blend of Power River Basin (PRB) coal with bituminous coal in existing Units 4 and 5.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to perform the proposed work in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department.

CONTENTS

- Section 1. General Information
- Section 2. Administrative Requirements
- Section 3. Emissions Units Specific Conditions
- Section 4. Appendices

(DRAFT)

Michael G. Cooke, Director
Division of Air Resource Management

(Date)

SECTION 1. GENERAL INFORMATION

FACILITY AND PROJECT DESCRIPTION

The Crystal River Plant is an existing coal-fired power plant consisting of: four coal-fired fossil fuel steam generating units with electrostatic precipitators; two natural draft cooling towers (for Units 4 and 5); helper mechanical cooling towers (for Units 1, 2, and Nuclear Unit 3); ash-handling facilities, and re-locatable diesel-fired generators.

This permit authorizes the temporary trial burn of a blend of Power River Basin (PRB) subbituminous coal with bituminous coal in existing Units 4 and 5. Although the permit restricts the blend to no more than 30% PRB coal, a variety of other PRB coal blends will be tested. The two coals will be blended off-site and shipped to the plant as a premixed blend. The trial burn is limited to no more than 150,000 tons of PRB coal blend and must be completed within 90 days after first firing the PRB coal blend. Emissions and operational testing will be conducted during the trial burn. The project will primarily affect existing coal-fired Unit 4 (EU-004) and Unit 5 (EU-003) as well as the coal/ash handling and storage. No new equipment is necessary to conduct the trial burn.

REGULATORY CLASSIFICATION

Title III: The existing facility is a major source of hazardous air pollutants (HAP).

Title IV: The existing facility operates units subject to the acid rain provisions of the Clean Air Act.

Title V: The existing facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

PSD: The existing facility is a PSD-major facility in accordance with Rule 62-212.400, F.A.C.

NSPS: The existing facility operates units subject to the New Source Performance Standards of 40 CFR 60.

RELEVANT DOCUMENTS

The following relevant documents are not a part of this permit, but helped form the basis for this permitting action: the permit application and additional information received to make it complete; the draft permit package including the Department's Technical Evaluation and Preliminary Determination; publication and comments; and the Department's Final Determination. The plant currently operates under the terms and conditions of Title V air operation Permit No. 0170004-009-AV.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to construct, modify, or operate emissions units shall be submitted to the Bureau of Air Regulation of the Florida Department of Environmental Protection (DEP) at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. Copies of all such documents shall be submitted to the Compliance Authority.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Air Resource Section of the Department's Southwest District Office at 13051 N. Telecom Parkway, Temple Terrace, FL 33637-0926.
3. Appendices: The following Appendices are attached as part of this permit: Appendix A (Citation Formats), Appendix B (General Conditions), and Appendix C (Common Conditions).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.); and Title 40, Part 60 of the Code of Federal Regulations (CFR), adopted by reference in Rule 62-204.800, F.A.C. The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Title V Permit: This project authorizes limited temporary use of a fuel not currently authorized to allow for the gathering of emissions and operational data. The facility shall remain in compliance with the terms and conditions of the current Title V air operation permit. As this is a temporary authorization, an application to revise the Title V air operation permit is not required. [Rules 62-4.030, 62-4.050, 62-4.070, 62-4.220, and Chapter 62-213, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Units 4 and 5

This section addresses the following emissions units as described in the Title V air operation permit.

ID No.	Brief Description
003 and 004	Fossil fuel steam generator Unit 4 (EU-004) and Unit 5 (EU-003) are identical dry bottom wall-fired boilers rated at 760 MW (6665 MMBtu/hr). Each unit is currently authorized to fire bituminous coal, a bituminous coal and bituminous coal briquette mixture, and used oil, with No. 2 fuel oil as a startup fuel, and natural gas as a startup and low-load flame stabilization fuel. Emissions from each boiler exhaust through individual stacks that are 600 feet tall. Emissions from each boiler are controlled with a high-efficiency electrostatic precipitator.

TEMPORARY AUTHORIZATION AND RESTRICTIONS

1. PRB Coal Blend: The permittee is temporarily authorized to fire a blend of Powder River Basin (PRB) coal with bituminous coal. A variety of PRB coal blends may be tested, but the blends shall not exceed 30% PRB coal by weight. PRB coal blends shall be blended off site and delivered by ship to the plant as a premixed blend. This permit does not authorize the permanent firing of PRB coal blends. [Application No. 0170004-012-AC; Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]
2. Trial Test Burn Duration: PRB coal blends shall only be fired in existing Units 4 and 5. PRB coal blends shall be fired in a similar manner to the bituminous coal currently in use at the plant. The permittee shall provide at least a one-day advance notice (by phone, fax, or email) to the Compliance Authority prior to the initial firing of PRB coal. Once any PRB coal blend is fired, the permittee shall complete the trial burn within 90 calendar days. No more than 150,000 tons of PRB coal blend shall be burned during the trial burn. In addition, the trial burn shall be completed prior to the expiration date of this permit. The permittee shall not fire PRB coal blends either before or after the authorized trial burn period. Within five calendar days of completing the trial burn, the permittee shall notify the Compliance Authority (by phone, fax, or email) that the trial burn has been completed. *{Permitting Note: The purpose of this temporary authorization is to gather operational and emissions data related to firing PRB coal blends for the evaluation of overall impacts.}* [Application No. 0170004-012-AC; Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

EMISSIONS LIMITING AND PERFORMANCE STANDARDS

3. Performance Requirements: The permittee shall provide the Compliance Authority with a preliminary schedule for conducting the trial burn and performance tests and shall update this schedule as necessary. During the trial burn, the permittee shall comply with all current terms and conditions in Title V air operation Permit No. 0170004-009-AV. If the trial burn results in operation that is not in accordance with the conditions of the Title V permit or the test protocol, the performance testing will cease as soon as possible. The permittee shall immediately notify the Compliance Authority (by phone, fax, or email) of any non-compliance issue. The trial burn shall not resume until appropriate actions have been taken to correct the problem. [Application No. 0170004-012-AC; Rule 62-4.070(3), F.A.C.]
4. Fugitive Dust: The permittee shall take reasonable precautions to prevent fugitive dust emissions from the unloading, storage, and handling of PRB coal blends. These shall be the same reasonable precautions specified in the current Title V air operation Permit No. 0170004-009-AV to prevent fugitive dust emissions from the unloading, storage, and handling of bituminous coal currently in use at the plant. [Application No. 0170004-012-AC; Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

MONITORING AND TESTING

5. Monitoring of Operations: When firing PRB coal blends, the permittee shall conduct the following monitoring.
 - a. The permittee shall record the amount and blend ratio of each PRB coal blend delivered to the plant.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Units 4 and 5

A "certificate of analysis" (including the proximate and ultimate analysis) shall be retained for each delivery of PRB coal blend.

- b. On at least three separate days, the permittee shall take samples of the PRB coal blend being fired. A proximate and ultimate analysis shall be provided for each sample taken. Samples taken on different emissions testing days may satisfy this requirement.
- c. The permittee shall maintain daily records of the boiler operations including: the PRB blend ratio fired; the fuel mass firing rate; the heat input rate; steam production, temperature and pressure; and the MW generated.
- d. The permittee shall test the ESP fly ash for resistivity. At least two samples shall be taken on separate operating days. The samples shall be taken during the tests for particulate matter and after the boiler has fired a sufficient amount of PRB coal blend to ensure that the collected sample is representative of firing PRB coal blend. Each sample shall be analyzed for resistivity. If resistivity data is not available for baseline coal firing, at least two samples shall be taken and analyzed for resistivity when firing baseline coal for purposes of comparison.
- e. The permittee shall monitor and record the electrostatic precipitator (ESP) secondary voltage and secondary current and calculate and record the total ESP secondary power input.
- f. The permittee shall continuously monitor and record opacity, nitrogen oxides (NOx) emissions and sulfur dioxide (SO₂) emissions with existing monitoring systems.

For comparison purposes, the permittee shall identify the current corresponding baseline monitoring values (for bituminous coal firing) or collect baseline data during the trial burn period. [Rule 62-4.070(3), F.A.C.]

6. Notifications: The permittee shall provide the Compliance Authority with a written preliminary schedule for conducting any emissions tests (by letter, fax, or email). The preliminary schedule shall be updated as necessary. The permittee shall provide the Compliance Authority with at least 5 days advance notice (by phone, fax, or email) prior to conducting any emissions tests. [Rule 62-4.070(3), F.A.C.]
7. Test Methods: Any required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1 - 4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5 or 17	Determination of Particulate Matter (PM) Emissions
6	Determination of Sulfur Dioxide (SO ₂) Emissions
7E	Determination of Nitrogen Oxide (NOx) Emissions
9	Visual Determination of the Opacity
10	Determination of Carbon Monoxide (CO) Emissions
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.)

Tests shall also be conducted in accordance with the requirements specified in Appendix C of this permit. The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

8. Emissions Testing - Baseline: Each boiler shall have representative baseline emission levels for carbon monoxide (CO) based on actual tests data collected when firing only the bituminous coal currently in use.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Units 4 and 5

Such tests shall consist of at least three runs conducted at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum heat input rate allowed by the permit. Test results shall be reported in units of ppmvd @ 7% oxygen, lb/MMBtu, and lb/hour. If such representative CO emissions data does not exist at the time of the trial burn, each boiler shall be tested to determine the CO emissions. *{Permitting Note: Baseline emissions data is already available for opacity, nitrogen oxides (NOx) emissions and sulfur dioxide (SO₂) based on continuous monitoring data and for particulate matter based on annual tests.}* [Rule 62-4.070(3), F.A.C.]

9. Emissions Testing - PRB Coal Blend: Each boiler shall be tested to determine emission levels of carbon monoxide (CO) and particulate matter (PM) when firing the PRB coal blend with the highest PRB coal content fired during the trial burn. Each test shall consist of three runs conducted at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum heat input rate allowed by the permit. Particulate matter (PM) tests shall include three test runs under normal test conditions including soot blowing. Test results shall be reported in units of ppmvd @ 7% oxygen (gases), lb/MMBtu, and lb/hour. During the day of each required emissions testing, the permittee shall obtain a sample of the PRB coal blend as fired. A proximate and ultimate analysis shall be provided for each sample taken. If only one boiler fires the PRB coal blend during the trial burn, that unit shall conduct two series of tests to determine emission levels of carbon monoxide (CO) and particulate matter (PM) when firing the PRB coal blend. *{Permitting Note: Emissions levels for opacity, nitrogen oxides (NOx) emissions and sulfur dioxide (SO₂) will be determined by the continuous monitoring data collected during the trial burn.}* [Rule 62-4.070(3), F.A.C.]

RECORDS AND REPORTS

10. Emissions Tests Reports: The permittee shall prepare and submit reports for all emissions tests in accordance with the requirements specified in Appendix C of this permit. For each test run, the report shall also indicate the following: the PRB blend ratio, the fuel firing rate, the heat input rate, the average ESP secondary power input, the opacity, the NOx emission rate, and the SO₂ emission rate. [Rule 62-297.310(8), F.A.C.]
11. Trial Burn Report: Within 60 days of completing the trial burn, the permittee shall submit a final report summarizing the trial burn to the Bureau of Air Regulation and the Compliance Authority. The trial burn report shall include, but not be limited to, the following information:
- Actual schedule and overall description of the trial burn;
 - Summary of PRB blends evaluated (amounts delivered; blend ratio; and proximate/ultimate analyses);
 - Discussion of operational issues of PRB coal including: coal unloading, handling, storage and firing; fugitive dust; soot blowing; ESP performance and adjustments; and ash handling and storage;
 - Comparison of baseline operations versus operation with PRB coal blend;
 - Evaluation of current equipment compatibility with PRB coal blend;
 - Summary of continuous emissions monitoring data;
 - Summary of boiler operating data;
 - Summary of emissions test results, actual test schedule, and procedures used;
 - Comparison of baseline emissions with emissions from firing PRB coal blend (short-term and long-term); and,
 - Discussion of emissions changes as described in Appendix C of 40 CFR 60.
- Rules 62-4.070(3), 62-210.200(PTE) and 62-212.400, F.A.C.

SECTION 4. APPENDICES
CONTENTS

Appendix A. Citation Formats
Appendix B. General Conditions
Appendix C. Common Conditions

SECTION 4. APPENDIX A

CITATION FORMATS

The following examples illustrate the format used in the permit to identify applicable permitting actions and regulations.

REFERENCES TO PREVIOUS PERMITTING ACTIONS

Old Permit Numbers

Example: Permit No. AC50-123456 or Air Permit No. AO50-123456

Where: "AC" identifies the permit as an Air Construction Permit
"AO" identifies the permit as an Air Operation Permit
"123456" identifies the specific permit project number

New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: "099" represents the specific county ID number in which the project is located
"2222" represents the specific facility ID number
"001" identifies the specific permit project
"AC" identifies the permit as an air construction permit
"AF" identifies the permit as a minor federally enforceable state operation permit
"AO" identifies the permit as a minor source air operation permit
"AV" identifies the permit as a Title V Major Source Air Operation Permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: "PSD" means issued pursuant to the Prevention of Significant Deterioration of Air Quality
"FL" means that the permit was issued by the State of Florida
"317" identifies the specific permit project

RULE CITATION FORMATS

Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

Example: [40 CFR 60.7]

Means: Title 40, Part 60, Section 7

SECTION 4. APPENDIX B
GENERAL CONDITIONS

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
 - a. Have access to and copy and records that must be kept under the conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of non-compliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida

SECTION 4. APPENDIX B
GENERAL CONDITIONS

Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - a. Determination of Best Available Control Technology (not applicable);
 - b. Determination of Prevention of Significant Deterioration (not applicable); and
 - c. Compliance with New Source Performance Standards (not applicable).
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - 1) The date, exact place, and time of sampling or measurements;
 - 2) The person responsible for performing the sampling or measurements;
 - 3) The dates analyses were performed;
 - 4) The person responsible for performing the analyses;
 - 5) The analytical techniques or methods used; and
 - 6) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SECTION 4. APPENDIX C
COMMON CONDITIONS

Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.

EMISSIONS AND CONTROLS

1. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
2. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
3. General Visible Emissions: No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20 percent opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]
4. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

TESTING REQUIREMENTS

5. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]
6. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]
7. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
8. Test Procedures: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C.
 - a. *Required Sampling Time*. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.
 - b. *Minimum Sample Volume*. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.

SECTION 4. APPENDIX C
COMMON CONDITIONS

- c. *Calibration of Sampling Equipment.* Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.

[Rule 62-297.310(4), F.A.C.]

9. Determination of Process Variables

- a. *Required Equipment.* The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- b. *Accuracy of Equipment.* Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

10. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C.
11. Test Notification: The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]
12. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]
13. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
1. The type, location, and designation of the emissions unit tested.
 2. The facility at which the emissions unit is located.
 3. The owner or operator of the emissions unit.
 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
 8. The date, starting time and duration of each sampling run.
 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.

SECTION 4. APPENDIX C
COMMON CONDITIONS

10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

RECORDS AND REPORTS

14. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]



RECEIVED

MAR 06 2006

BUREAU OF AIR REGULATION

March 3, 2006

Mr. Jeff Koerner
DEP/DARM
North Permitting Section
Division of Air Resource Management
2600 Blair Stone Road MS 5500
Tallahassee, Florida 32399-2400

Re: Crystal River Facility – Title V Permit 0170004-009-AV
Proposed Powder River Basin (PRB) Coal Test Burn
Air Construction Permit Application

Dear Mr. Koerner:

Attached is an application for an air construction permit for a proposed trial burn of PRB coal at Crystal River, as discussed during our visit to your offices on February 10, 2006. Specifically, Progress Energy Florida proposes to fire a coal blend of up to 30 percent PRB coal and 70 percent bituminous coal.

Enclosed please find an original and three copies of the application package. We would very much appreciate your expedited processing of the application.

Thank you for your help in this matter. Please contact me at (727) 820 5295 or Scott Osbourn, P.E. at (813) 287-1717 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dave Meyer'.

Dave Meyer
Senior Environmental Specialist

cc: Ms. Mara Nasca, FDEP SW District (Cover Letter)

M. Worley, EPA

RECEIVED

MAR 06 2006

BUREAU OF AIR REGULATION

MINOR SOURCE AIR CONSTRUCTION PERMIT APPLICATION
COMBUSTION OF POWDER RIVER BASIN (PRB) COAL
CRYSTAL RIVER ENERGY COMPLEX
CRYSTAL RIVER, CITRUS COUNTY, FLORIDA

Submitted to:

*Progress Energy Florida
100 Central Avenue
St. Petersburg, Florida 33701*

Submitted by:

*Golder Associates Inc.
5100 West Lemon Street
Suite 114
Tampa, Florida 33609*

Distribution:

4 Copies Department of Environmental Protection
2 Copies Progress Energy Florida
2 Copies Golder Associates Inc.

March 2006

053-9583

0170004-012-AC

Golder Associates

PART I – FDEP APPLICATION FOR AIR PERMIT**PART II – APPLICATION REPORT**

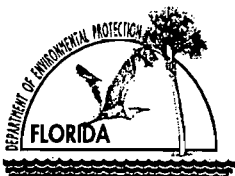
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APPENDIX B	Units 4 and 5 Site Certification Language
APPENDIX C	Certificates of Analysis

PART I

FDEP APPLICATION FOR AIR PERMIT



Department of Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit for a proposed project:

- subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- at an existing federally enforceable state air operation permit (FESOP) or Title V permitted facility.

Air Operation Permit – Use this form to apply for:

- an initial federally enforceable state air operation permit (FESOP); or
- an initial/revised/renewal Title V air operation permit.

Air Construction Permit & Revised/Renewal Title V Air Operation Permit (Concurrent Processing Option)

– Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: PROGRESS ENERGY FLORIDA, INC.	
2. Site Name: CRYSTAL RIVER POWER PLANT	
3. Facility Identification Number:	
4. Facility Location...: Street Address or Other Locator: NORTH OF CRYSTAL RIVER, WEST OF U.S. 19 City: CRYSTAL RIVER County: CITRUS Zip Code: 34428	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Application Contact

1. Application Contact Name: DAVE MEYER, SENIOR ENVIRONMENTAL SPECIALIST	
2. Application Contact Mailing Address... Organization/Firm: PROGRESS ENERGY FLORIDA Street Address: 100 CENTRAL AVE CX1B City: ST. PETERSBURG State: FL Zip Code: 33701	
3. Application Contact Telephone Numbers... Telephone: (727) 820-5295 ext. Fax: (727) 820-5229	
4. Application Contact Email Address: DAVE.MEYER@PGNMAIL.COM	

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	3/6/04
2. Project Number(s):	0170004 - 012 - AC
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

APPLICATION INFORMATION

Purpose of Application

This application for air permit is submitted to obtain: (Check one)

Air Construction Permit

☒ Air construction permit.

Air Operation Permit

- ☐ Initial Title V air operation permit.
- ☐ Title V air operation permit revision.
- ☐ Title V air operation permit renewal.
- ☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
- ☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)

- ☐ Air construction permit and Title V permit revision, incorporating the proposed project.
- ☐ Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

- ☐ I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

Progress Energy is proposing to conduct a trial burn of a bituminous and subbituminous blend. Specifically, a trial burn will be conducted for a blend of as much as 30% powder river basin (PRB) coal with the existing bituminous coal supply. See Part II for details of the proposed trial burn.

The trial burn is proposed to begin on around May 1, 2006 and is expected to last about 60 days. The blend will be fired in Units 4 and/or 5, depending on circumstances at the time of the test burn. It's proposed to burn approximately 64,000 short tons (approximately 4 barges) of the blended fuel. This translates into roughly 226 total full load operating hours of burn time for one unit, or about 113 hours total (approximately 5 days), if both units are operating concurrently.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
004	FFSG, Unit 4		NA
003	FFSG, Unit 5		NA

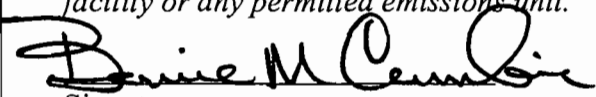
Application Processing Fee

Check one: ☐ Attached - Amount: \$_____ ☒ Not Applicable

APPLICATION INFORMATION

Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name :	
BERNIE CUMBIE, PLANT MANAGER	
2. Owner/Authorized Representative Mailing Address...	
Organization/Firm: PROGRESS ENERGY	
Street Address: 100 CENTRAL AVE CN77	
City: ST PETERSBURG State: FLORIDA Zip Code: 33701	
3. Owner/Authorized Representative Telephone Numbers...	
Telephone: (352) 563-4484 ext. Fax: (352) 563-4496	
4. Owner/Authorized Representative Email Address: BERNE.CUMBIE@PGNMAIL.COM	
5. Owner/Authorized Representative Statement:	
<p><i>I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.</i></p>	
 Signature	<u>3/1/06</u> Date

APPLICATION INFORMATION

Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name:
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.
3. Application Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
4. Application Responsible Official Telephone Numbers... Telephone: () - ext. Fax: () -
5. Application Responsible Official Email Address:
6. Application Responsible Official Certification: I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application. _____ Signature _____ Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: **SCOTT OSBOURN**

Registration Number: **57557**

2. Professional Engineer Mailing Address...

Organization/Firm: **Golder Associates Inc.****

Street Address: **5100 West Lemon St., Suite 114**

City: **Tampa**

State: **FL**

Zip Code: **33609**

3. Professional Engineer Telephone Numbers...

Telephone: **(813) 287-1717** ext.211 Fax: **(813) 287-1716**

4. Professional Engineer Email Address: **SOSBOURN@GOLDER.COM**

5. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

(3) If the purpose of this application is to obtain a Title V air operation permit (check here ☐, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☒, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☐, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature

Date

(seal)

**LICENSE
NO. 57557**

Attach any exception to certification statement.

Board of Professional Engineers Certificate of Authorization #00001670

FACILITY INFORMATION

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates...		2. Facility Latitude/Longitude...	
Zone 17	East (km) 334.3 North (km) 3204.5	Latitude (DD/MM/SS) 28/57/34 Longitude (DD/MM/SS) 82/42/01	
3. Governmental Facility Code: 0	4. Facility Status Code: A	5. Facility Major Group SIC Code: 49	6. Facility SIC(s):
7. Facility Comment :			

Facility Contact

1. Facility Contact Name:	DAVE MEYER, SENIOR ENVIRONMENTAL SPECIALIST		
2. Facility Contact Mailing Address...	Organization/Firm: PROGRESS ENERGY		
	Street Address: 100 CENTRAL AVE CX1B		
	City: ST PETERSBURG	State: FLORIDA	Zip Code: 33701
3. Facility Contact Telephone Numbers:	Telephone: (727) 820-5295 ext. Fax: (727) 820-5229		
4. Facility Contact Email Address:	DAVE.MEYER@PGNMAIL.COM		

Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I. that is not the facility "primary responsible official."

1. Facility Primary Responsible Official Name:
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Street Address: <div> <div>City:</div> <div>State:</div> <div>Zip Code:</div> </div>
3. Facility Primary Responsible Official Telephone Numbers... Telephone: () - ext. Fax: () -
4. Facility Primary Responsible Official Email Address:

FACILITY INFORMATION

Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a “major source” and a “synthetic minor source.”

1. <input type="checkbox"/> Small Business Stationary Source	<input type="checkbox"/> Unknown
2. <input type="checkbox"/> Synthetic Non-Title V Source	
3. <input checked="" type="checkbox"/> Title V Source	
4. <input checked="" type="checkbox"/> Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. <input type="checkbox"/> Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. <input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)	
7. <input type="checkbox"/> Synthetic Minor Source of HAPs	
8. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9. <input type="checkbox"/> One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. <input type="checkbox"/> One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11. <input type="checkbox"/> Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12. Facility Regulatory Classifications Comment:	

FACILITY INFORMATION

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
PM	A	N
PM10	A	N
SO2	A	N
CO	A	N
NOx	A	N
VOC	A	N

FACILITY INFORMATION

FACILITY INFORMATION

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Previously Submitted, Date:_____
2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Previously Submitted, Date:_____
3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Previously Submitted, Date:_____

Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable (existing permitted facility)
2. Description of Proposed Construction or Modification: <input checked="" type="checkbox"/> Attached, Document ID: PART II
3. Rule Applicability Analysis: <input checked="" type="checkbox"/> Attached, Document ID: PART II
4. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.): <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification (Rule 62-212.400(2), F.A.C.): <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable
6. Preconstruction Air Quality Monitoring and Analysis (Rule 62-212.400(5)(f), F.A.C.): <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable
7. Ambient Impact Analysis (Rule 62-212.400(5)(d), F.A.C.): <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(5)(h)5., F.A.C.): <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(5)(e)1. and 62-212.500(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable

PART II

APPLICATION REPORT

1.0 INTRODUCTION AND EXECUTIVE SUMMARY

The proposed Project involves evaluating the firing of various blend ratios (up to 30 percent) of Powder River Basin (PRB) and Eastern Bituminous (Central App) coal at Crystal River Units 4 and 5. This application for a minor source construction permit will allow for a trial burn as a high-level assessment that will assist Progress Energy Florida (PEF) in the performance of a first-cut evaluation to determine if PRB coal will meet expected performance and environmental criteria.

As discussed in a meeting with the Department on February 7, 2006, Crystal River Units 4 and 5 were originally designed to burn a 50/50 percent blend of Eastern bituminous (Illinois Basin) and Western sub-bituminous coal (PRB). The design specifications, provided by Babcock & Wilcox, are included in Appendix A of this application. The original Site Certification language (attached as Appendix B) allowed for a 50 percent blend of PRB coal. The Site Certification for Units 4 and 5 was issued prior to the effective date of the PSD program and, therefore, no construction permit was originally issued. Permit language that specified the burning of "only bituminous coal" originated in the initial Title V air operation permit, issued on January 1, 2000. Finally, as will be presented, the fuel blend, up to a maximum blend of 30 percent PRB, will have characteristics that closely match those of the bituminous coal types that are currently being burned.

The above factors, in addition to the fact that no plant changes to existing process equipment are necessary to test burn the proposed blend, were presented to the Department as PEF's position that Units 4 and 5 are "capable of accommodating" this fuel blend, and that no air permit changes are necessary. In spite of these factors, and at the Department's direction, PEF is submitting this application to obtain a minor source construction permit to allow for the burning of this fuel blend.

The following sections provide the Project Description (Section 2.0) and the Proposed Project Approach (Section 3.0).

2.0 PROJECT DESCRIPTION

The Crystal River Energy Complex consists of four coal-fired fossil fuel steam generating (FFSG) units with electrostatic precipitators; two natural draft cooling towers for FFSG Units 4 and 5; helper mechanical cooling towers for FFSG Units 1, 2 and Nuclear Unit 3; coal, fly ash, and bottom ash handling facilities, and relocatable diesel fired generator(s). This proposed PRB/CAPP fuel blend firing is only desired for Units 4 and 5. The PRB/CAPP fuel blend will contain up to as much as 30 percent PRB coal, the remainder consisting of the currently fired bituminous coal. The PRB and CAPP coal will be blended off-site and shipped to the Crystal River facility. This will minimize any issues associated with a perceived dust issue should PRB coal be transported and conveyed in a "non-blended" form. Typical characteristics of a 20 percent PRB blend are summarized below.

Coal Classifications

Babcock & Wilcox

Table 3
Classification of Coals by Rank* (ASTM D 388)

Class	Group	Fixed Carbon Limits, % (Dry, Mineral-Matter-Free Basis)		Volatile Matter Limits, % (Dry, Mineral-Matter-Free Basis)		Calorific Value Limits, Btu/lb (Moist, Mineral-Matter-Free Basis)		Agglomerating Character
		Equal or Greater Than	Less Than	Equal or Greater Than	Less Than	Equal or Greater Than	Less Than	
I. Anthracitic	1. Meta-anthracite	98	—	—	2	—	—	Nonagglomerating
	2. Anthracite	92	98	2	8	—	—	
	3. Semianthracite*	86	92	8	14	—	—	
II. Bituminous	1. Low volatile bituminous coal	78	86	14	22	—	—	Commonly agglomerating
	2. Medium volatile bituminous coal	69	78	22	31	—	—	
	3. High volatile A bituminous coal	—	69	31	—	14,000*	—	Agglomerating
	4. High volatile B bituminous coal	—	—	—	—	13,000* 14,000	—	
	5. High volatile C bituminous coal	—	—	—	—	11,500 13,000	10,500 11,500	
III. Subbituminous	1. Subbituminous A coal	—	—	—	—	10,500 11,500	—	Nonagglomerating
	2. Subbituminous B coal	—	—	—	—	9,500 10,500	—	
	3. Subbituminous C coal	—	—	—	—	8,300 9,500	—	
IV. Lignite	1. Lignite A	—	—	—	—	6,300 8,300	—	
	2. Lignite B	—	—	—	—	—	6,300	

*This classification does not include a few coals, principally nonhandled varieties, which have unusual physical and chemical properties and which come within the limits of fixed carbon or calorific value of the high volatile bituminous and subbituminous ranks. All of these coals either contain less than 48% dry, mineral-matter-free Btu/lb.

*Moist refers to coal containing its natural inherent moisture but not including visible water on the surface of the coal.

*If agglomerating, classify in low volatile group of the bituminous class.

*Coals having 69% or more fixed carbon on the dry, mineral-matter-free basis shall be classified according to fixed carbon, regardless of calorific value.

*It is recognized that there may be nonagglomerating varieties in these groups of the bituminous class, and there are notable exceptions in high volatile C bituminous group.

Product will be pre-blended prior to site delivery.

80% CAPP/20% PRB
11,300-11,800 Btu/lb

*From Babcock & Wilcox, "Steam Book", 40th edition, pg. B-5.



3.0 PROPOSED PROJECT APPROACH

PEF anticipates conducting the test burn over an extended period of time to allow the impact of PRB coal to accumulate in the boiler and other components, so that the effects of PRB coal can be determined. Ash deposits on the furnace water walls will take some time to accumulate. A short-term test burn may not show any adverse effects that will become evident later when the blend is fired on a longer duration.

PEF, therefore, proposes a test burn of four barge loads of the blended fuel. Each barge is approximately 16,000 tons of blended coal, or a total of 64,000 tons. Assuming a fuel heating value of 11,800 Btu/lb (approximate for an 80/20 percent bituminous and PRB blend) and the current heat input limit for Units 4 and 5 of 6,665 MMBtu/hr each, it would take approximately 226 total full load operating hours to combust all four barge loads. With both units operating simultaneously, it would take half the time, or roughly 113 hours of full load operation from each unit (approximately 5 days) to complete the trial burn. To accomplish this, PEF proposes a 60 day trial burn period, commencing on May 1, 2006. This 60 day window will allow for flexibility in the testing schedule, given the uncertainties in barge deliveries and PEF's reliance on an off-site third party blending facility.

PEF anticipates the following effects on pollutants of concern:


- SO₂ should be comparable or reduced;
- NO_x should be comparable or reduced;
- PM/PM₁₀ should be comparable (fugitive dust addressed by off-site blending); and
- CO/VOCs should be comparable.

All conditions of the existing permit related to air pollution emission limits and control equipment will remain in force during the trial burn. CEMS data will be recorded and analyzed for the duration of the trial burn for SO₂, NO_x and opacity. An emission test will also be conducted and results reported for PM/PM₁₀ (EPA Method 5 or 17). Daily records (i.e., mass fuel feed rates and heat input) of the boiler operations when firing the fuel blend will be maintained and reported. Performance testing will cease as soon as possible if the test boiler operations are not in accordance with current

permit conditions or this protocol. Performance testing with this coal blend will not resume until appropriate measures to correct the problem have been implemented. A test report will be submitted to the Department within 45 days of completion of the trial burn.

The exhibit below summarizes some of the predicted modeled characteristics of a 20 percent PRB blend, including the anticipated effects on NO_x, SO₂ and fly ash LOI (loss on ignition). In addition, certificates of analysis are presented in Appendix C for a currently-fired Central Appalachian (CAPP) coal, PRB coal and a proposed 70/30 percent CAPP/PRB blend. As discussed previously, the characteristics of the proposed blend are similar to the Central Appalachian (CAPP) bituminous coal currently burned.

CR 5 Performance Comparison Ranges of 4 coals



Item	Low	CAPP/PRB Blend	High	Comment (CAPP/PRB)
Higher Heating Value (Btu/lb)	11,733	11,743	12,498	OK
Moisture (%)	7	10	12	OK
Volatile Matter (%)	30.2	30.7	36.3	OK
Fixed Carbon (%)	47	50	51	OK
Ash (%)	4.8	9.4	11.5	OK
Sulfur (%)	0.61	0.61	0.74	Benefit
Hardgrove Grindability (HGI)	48	54	55	Benefit
Auxiliary Power (MW)	33	35	35	Marginal
Calculated Derate (MWg)	0	0	0	OK
Boiler Efficiency, HHV Basis (%)	88.1	88.1	89.4	Marginal
Adjusted Mill Capacity (tph)	48	54	55	OK
Required Throughput Per Mill (tph)	45	49	49	OK
Mill Power Required (kW)	1,458.44	1,490.30	1,572.29	Benefit
Opacity Actual (%) - predicted	3.1	6.6	7.0	OK
SO ₂ Production (lb/mmBtu)	1.04	1.04	1.10	Benefit
NO _x Production (lb/mmBtu)	0.54	0.54	0.54	OK
Total Forced Outage Hours	545	573	637	OK
Total Maintenance/Availability Cost (\$MM)	1.276	1.291	1.348	Benefit
Fly Ash LOI (%)	4.5	6.0	10.5	Marginal
Fly Ash Production Rate (tons/hr)	12	23	27	OK
Period Fly Ash Production (tons/yr)	84,211	172,463	194,619	OK
Annual Coal Burn Rate ('000's tons/yr)	2,051	2,291	2,291	Marginal

*The coals modeled include normal domestic calibration coal, Drummond Colombian coal, 60% CAPP/40% Venez coal and 80%CAPP/20%PRB. (See Appendix for further modeling details.)



APPENDIX A
UNITS 4 AND 5 DESIGN SPECIFICATIONS

Instructions
for the
Care and Operation
of
**Babcock & Wilcox
Equipment**

furnished on Contract

RB-588

for

Florida Power Corporation

Crystal River Plant
Unit 4



UNIT DESCRIPTION

PLANT

This unit is installed as Unit No. 4 at the Crystal River Plant located near Crystal River, Florida. Plant elevation is 11 feet above sea level.

The unit supplies steam to a GE turbine rated at 665 MW. The consulting engineer is Black & Veatch, Kansas City, Missouri.

BOILER

This is a semi-indoor, balanced draft Carolina Type Radiant Boiler designed for pulverized coal firing. The unit has 54 Dual-Register burners arranged in three rows of nine burners each on both the front and rear walls. Furnace dimensions are 79 feet wide, 57 feet deep, and 201 feet from the centerline of the lower wall headers to the drum centerline. The steam drum is 72 inches ID.

The maximum continuous rating is 5,239,600 lb/hr of main steam flow at 2640 psig and 1005° F at the superheater outlet with a reheat flow of 4,344,700 lb/hr at 493 psig and 1005° F with a normal feedwater temperature of 546° F. This is a 5% overpressure condition. The full load rating is 4,737,900 lb/hr of main steam flow at 2500 psig and 1005° F with a reheat flow of 3,959,800 lb/hr at 449 psig and 1005° F with a normal feedwater temperature of 535° F. Main steam and reheat steam temperatures are controlled to 1005° F from MCR load down to half load (2,368,900 lb/hr) by a combination of gas recirculation and spray attemperation.

The unit is designed for cycling service and is provided with a full boiler by-pass system. The unit can be operated with either constant or variable turbine throttle pressure from 63% of full load on down.

The design pressures of the boiler, economizer, and reheater are 2975, 3050, and 750 psig respectively.

Steam for boiler soot blowing is taken off the primary superheater outlet header. Steam for air heater soot blowing is taken off the secondary superheater outlet.

SCOPE OF SUPPLY

The major items of equipment supplied by B&W include:

- RBC unit pressure parts including boiler, primary and secondary superheater, economizer, and reheater.
- Fifty-four Dual-Register burners and lighters.
- Six MPS-89GR pulverizers and piping to burners.
- By-pass system including valves and piping.
- Two stages of superheat attemperators (first stage tandem) and one stage of reheat attemperation (2 nozzles); nozzles only, no block or control valves or spray water piping.
- Three Rothemuhle air heaters (one primary and two secondary).
- Ducts from secondary air heaters to windbox.

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Progress Energy

- Primary air system: two TLT centrifugal PA fans and ducts from fans to pulverizers.
- Gas recirculation system: one TLT centrifugal GR fan, one dust collector and flues.
- Six Stock gravimetric coal feeders and drives.
- Bailey burner controls.
- Safety valves and ERV.
- Brickwork, refractory, insulation and lagging (BRIL).
- Seal air piping and fans.
- Erection.
- Recommended spare parts.

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FUEL

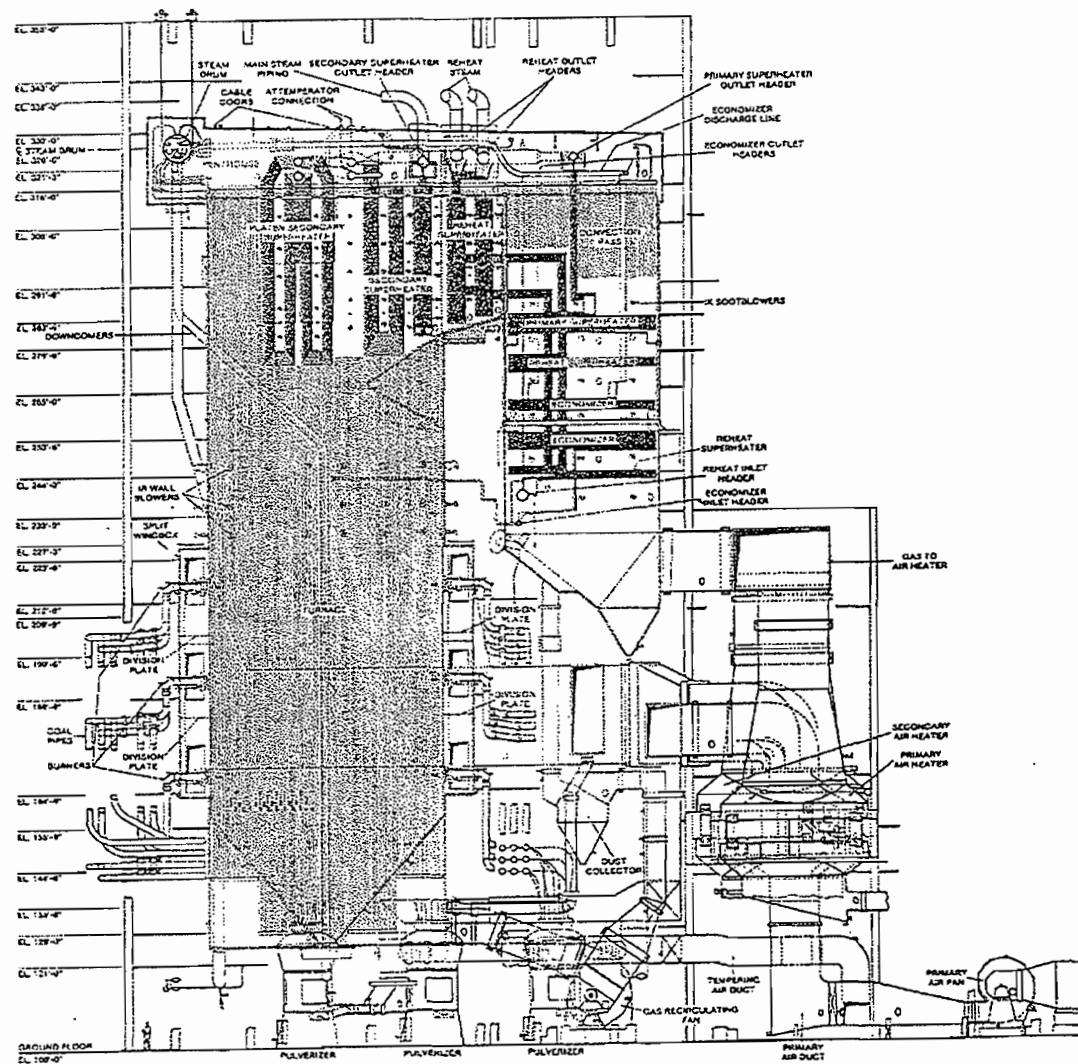
The guarantees for this unit are based on firing a 50/50 blend of Eastern bituminous and Western sub-bituminous coal. The performance goal is classified as high slagging and medium fouling. Performance was also checked on Illinois deep-mined coal which is classified as severe slagging and high fouling. The furnace and convection pass are designed for a severe slagging and severe fouling coal.

Ultimate Analysis: % by Weight

	<u>Performance</u>	<u>Illinois</u>
Ash	7.90	13.00
Sulfur	0.49	4.20
Hydrogen	3.90	4.40
Carbon	58.80	62.00
Chlorine	0.03	0.02
Water	18.50	10.00
Nitrogen	1.10	1.38
Oxygen	9.28	5.00
	<hr/>	<hr/>
Total	100.00	100.00
Higher Heating Value	10285 Btu/lb	11000 Btu/lb



Progress Energy



FLORIDA POWER CORPORATION
CRYSTAL RIVER PLANT, UNIT NO. 4
CRYSTAL RIVER, FLORIDA

CAPACITY: 1,100,000 LB STEAM PER HOUR
SUPERHEATER OUTLET PRESSURE: 1200

3,240,000 SUPERHEATER OUTLET TEMPERATURE, F
2,640 REHEAT OUTLET TEMPERATURE, F

1200
1,025

BABCOCK & WILCOX RADIANT REHEAT BOILER

THIS SUMMARY SHEET IS THE PROPERTY OF THE BARCOCK & WILCOX COMPANY AND IS LOANED UPON CONDITION THAT IT IS NOT TO BE COPIED, IN WHOLE OR IN PART OR USED FOR FURNISHING INFORMATION TO OTHERS, OR FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF THE BARCOCK & WILCOX COMPANY. IT IS TO BE RETURNED UPON REQUEST.

FUEL AS FIRED				PREDICTED PERFORMANCE				EQUIPMENT PER UNIT			
SAMPLES				STEAM LEAVING SH, M LB/HR				2368.9			
ANALYSES				STEAM LEAVING RH, M LB/HR				2063.8			
50/50 BLEND, EASTERN & WESTERN				STEAM LEAVING RW, M LB/HR				4737.9			
KIND				PC				5239.6			
CLASS				CONT.				4344.7			
GROUP				PC							
NAME				CONT.							
SEAM				PC							
DISTRICT				PC							
COUNTY				PC							
STATE				PC							
SIZE				PC							
CORROSIIVITY				PC							
SURFACE MOISTURE, %				PC							
PERF.				PC							
ASH SOFT TEMP., °F (REDUCING)				PC							
MOISTURE, TOTAL				PC							
VOLATILE MATTER				PC							
FIXED CARBON				PC							
ASH				PC							
TOTAL				PC							
FUEL BIT.				SUB-BIT.							
R ST				WT.							
ASH				10.0				5.0			
C				0.5				0.48			
H				6.4				3.6			
N				69.0				48.5			
O								58.80			
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APPENDIX B
UNITS 4 AND 5 SITE CERTIFICATION LANGUAGE

From Initial CR 4/5
Site Certification Application
(Dec. 1977) (SCA)

3.2 FUEL

3.2.1 Fuel Types and Quantities

The coal supplies for the Crystal River Plant Units 4 and 5 have not at the present time been committed. Present plans are to utilize coal, or a blend of coals, which will meet the EPA sulfur emission standards without the use of flue gas scrubbers.

The coals which will provide this compliance with the EPA standards are found in two geographical portions of the country; principally in the far western coal fields, and in the Appalachian coal fields. The Appalachian coals are generally a high quality, high BTU, high ash fusion, low sulfur coal. The western coals are generally lower quality, low BTU, high ash, high moisture, but extremely low sulfur coals.

The proposed design coal for the Crystal River Units 4 and 5 is a 50/50 blend of a typical Appalachian and western coal. The fuel and ash analyses for the 50/50 design blend are shown in Tables 3.2-1 and 3.2-2, respectively.

At the rated net output (640 MW), and the design blend coal heating value of approximately 23 923 kJ/kg (10,285 BTU/LB), the coal consumption will be approximately 294 000 kg (648,000 LB) per hour for each unit. The average coal consumption per year over the 30-year life of Units 4 and 5 will be approximately 1 700 000 metric

tons (1,870,000 tons) per year for each unit based on a 0.66 annual average capacity factor.

Auxiliary fuel for furnace warm-up and coal ignition during start-up will be fuel oil. Diesel fuel and gasoline will be used to power the emergency fire pumps and mobile coal and ash handling equipment. Average fuel oil consumption will be approximately $10\ 600\ m^3$ (2,800,000 GAL) per year for each unit based on 200 starts per year.

3.2.2 Fuel Transportation

In order to maintain a diversity of supply, approximately 50 per cent of the coal will be transported to the Crystal River site by unit trains and 50 per cent will be transported to the site in oceangoing barges.

The Appalachian coal will be transported in 70 to 110 car unit trains of approximately 90.7 metric ton (100 ton) capacity cars. An average of about four to six trains per week will be required to supply 50 per cent of the coal assuming the present projections for plant capacity.

The western coals will be transported from the coal fields by unit rail trains to the Mississippi River, loaded in river barges, and transported down the Mississippi to the New Orleans, Louisiana

Table 3.2-1. Fuel Analysis--Units 4 and 5 Design Basis Coal Blend

	<u>Design Basis Coal Blend</u>	
	<u>Typical</u>	<u>Range</u>
Proximate Analysis, Per Cent		
Moisture	18.5	4.0-32.0
Ash	7.9	4.4-15.4
Volatile Matter	31.0	24.6-32.1
Fixed Carbon	42.6	32.1-53.0
Ultimate Analysis, Per Cent		
Carbon	58.8	
Hydrogen	3.9	
Nitrogen	1.1	
Chlorine	0.03	
Sulfur	0.49	
Ash	7.9	
Oxygen	9.28	
Heating Value, kJ/kg (BTU/LB)		
As received	23 923 (10,285)	17 910-30 237 (7700-13,000)

APPENDIX C
CERTIFICATES OF ANALYSIS

CERTIFICATE OF ANALYSIS

COMPANY REQUESTING ANALYSIS:		SAMPLE CHRONOLOGY	
Kanawha River Terminals		DATE ANALYSED	June 23, 2005
		LAB NUMBER	999865389
		SAMPLE TAKEN BY	CLIENT

Blend Coal; Analysis 70% Appalachian Coal & 30% Powder River Basin Coal

				AS	DRY		PPM AS RECEIVED	
				RECEIVED	BASIS		WHOLE COAL BASIS	
PROXIMATE ANALYSIS						TRACE METALS		
% MOISTURE	13.52	N/A	N/A	% MOISTURE	13.52	N/A	ANTIMONY (Sb)	
% ASH	8.91	10.30	N/A	% CARBON	61.16	70.72	ARSENIC (As)	2.45
% VOLATILES	32.89	38.03	N/A	% HYDROGEN	4.40	5.09	BARIUM (Ba)	
% FIXED CARBON	44.68	51.67	N/A	% NITROGEN	0.89	1.03	BERYLLIUM (Be)	
BTU	11117	12855	14331	% CHLORINE	0.06	0.07	CADMIUM (Cd)	
% SULFUR	0.56	0.65	N/A	% SULFUR	0.56	0.65	COBALT (Co)	
SULFUR FORMS				% ASH	8.91	10.30	COPPER (Cu)	
% PYRITIC SULFUR	0.08	0.09		% OXYGEN (BY DIFF.)	10.50	12.14	CHROMIUM (Cr)	
% SULFATE SULFUR	0.24	0.28					GOLD (Au)	
% ORGANIC SULFUR	0.24	0.28					LEAD (Pb)	4.82
% TOTAL SULFUR	0.56	0.65					LITHIUM (Li)	
T-250 TEMP. OF ASH		* F					MANGANESE (Mn)	
ASH FUSION							MERCURY (Hg)	0.08
REDUCING							MOLYBDENUM (Mo)	
INITIAL, °F	2440						NICKEL (Ni)	
SOFTENING, °F	2500						SELENIUM (Se)	
HEMMISPHERICAL, °F	2560						SILVER (Ag)	
FLUID, °F	2640						THALLIUM (Tl)	
							VANADIUM (V)	
							ZINC (Zn)	
							ID COMPONENTS	
							Manganese Oxide	0.01
							Barium Oxide	0.54
							Strontium Oxide	0.35
							FOULING FACTOR	
							SLAGGING FACTOR	
							CHLORINE	769
							FLUORINE	30.41
							BROMINE	

CERTIFICATE OF ANALYSIS

COMPANY REQUESTING ANALYSIS:

Kanawha River Terminals

SAMPLE CHRONOLOGY

DATE ANALYSED

LAB NUMBER

SAMPLE TAKEN BY

Appalachian Coal

	AS RECEIVED	DRY BASIS	M.A.F. BTU
PROXIMATE ANALYSIS			
% MOISTURE	7.97	N/A	N/A
% ASH	10.25	11.14	N/A
% VOLATILES	28.83	31.33	N/A
% FIXED CARBON	52.94	57.53	N/A
BTU	12239	13299	14966
% SULFUR	0.73	0.79	N/A

SULFUR FORMS

% PYRITIC SULFUR	0.16	0.17
% SULFATE SULFUR	0.07	0.08
% ORGANIC SULFUR	0.50	0.54
% TOTAL SULFUR	0.73	0.32

T-250 TEMP. OF ASH

* F

ASH FUSION

REDUCING

INITIAL, °F	2700+
SOFTENING, °F	2700+
HEMISPHERICAL, °F	2700+
FLUID, °F	2700+

	AS RECEIVED	DRY BASIS
ULTIMATE ANALYSIS		
% MOISTURE	7.97	N/A
% CARBON	65.14	70.79
% HYDROGEN	4.66	5.06
% NITROGEN	0.98	1.06
% CHLORINE	0.08	0.09
% SULFUR	0.73	0.79
% ASH	10.25	11.14
% OXYGEN (BY DIFF.)	10.19	11.07

ASH MINERAL ANALYSIS

PHOSPHOROUS PENTOXIDE (P ₂ O ₅)	0.43
SILICON DIOXIDE (SiO ₂)	51.61
FERRIC OXIDE (Fe ₂ O ₃)	5.31
ALUMINUM TRIOXIDE (Al ₂ O ₃)	27.04
TITANIUM DIOXIDE (TiO ₂)	1.84
CALCIUM OXIDE (CaO)	3.99
MAGNESIUM OXIDE (MgO)	0.83
SULFUR TRIOXIDE (SO ₃)	0.93
POTASSIUM OXIDE (K ₂ O)	1.03
SODIUM OXIDE (Na ₂ O)	1.26
UNDETERMINED	4.76

HARDGROVE INDEX

46

DIMENSIONLESS

PPM AS RECEIVED WHOLE COAL BASIS

TRACE METALS

ANTIMONY (Sb)	
ARSENIC (As)	3.39
BARIUM (Ba)	
BERYLLIUM (Be)	
CADMIUM (Cd)	
COBALT (Co)	
COPPER (Cu)	
CHROMIUM (Cr)	
GOLD (Au)	
LEAD (Pb)	6.41
LITHIUM (Li)	
MANGANESE (Mn)	
MERCURY (Hg)	0.10
MOLYBDENUM (Mo)	
NICKEL (Ni)	
SELENIUM (Se)	
SILVER (Ag)	
THALLIUM (Tl)	
VANADIUM (V)	
ZINC (Zn)	

ID COMPONENTS

Manganese Oxide	0.01
Barium Oxide	0.57
Strontium Oxide	0.39

FOULING FACTOR

SLAGGING FACTOR

CHLORINE	1026
FLUORINE	32.19
BROMINE	

CERTIFICATE OF ANALYSIS																																																																																																																																																																																						
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SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Bernie Cumbie, Plant Manager
Progress Energy Florida
Crystal River Units 1&2
100 Central Avenue CN77
St. Petersburg, Florida 33701

2. Article Number

(Transfer from service label)

7000 1670 0013 3110 0727

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY**A. Signature**

X *Kelvin Johnson*

☒ Agent

☐ Addressee

B. Received By (Printed Name)

Kelvin Johnson

C. Date of Delivery

8/28

D. Is delivery address different from item 1?

☐ Yes

If YES, enter delivery address below:

☐ No

3. Service Type

☒ Certified Mail

☐ Express Mail

☐ Registered

☐ Return Receipt for Merchandise

☐ Insured Mail

☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

U.S. Postal Service**CERTIFIED MAIL RECEIPT**

(Domestic Mail Only; No Insurance Coverage Provided)

Mr. Bernie Cumbie, Plant Manager

Postage

\$

Certified Fee

Return Receipt Fee
(Endorsement Required)

Restricted Delivery Fee
(Endorsement Required)

Total Postage & Fees

\$

Postmark
Here

Sent To

Mr. Bernie Cumbie, Plant Manager

Street, Apt. No., or PO Box No.

100 Central Avenue CN77

City, State, ZIP+4

St. Petersburg, Florida 33701

PS Form 3800, May 2000

See Reverse for Instructions

Proof of Publication

from the
CITRUS COUNTY CHRONICLE
Crystal River, Citrus County, Florida
PUBLISHED DAILY

STATE OF FLORIDA
COUNTY OF CITRUS

Before the undersigned authority personally appeared

Dian Chin Quee

Of the Citrus County Chronicle, a newspaper published daily at Crystal River, in Citrus County, Florida, that the attached copy of advertisement being a public notice in the matter of the

428-0410 MCRN PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT Florida Department of Environmental Protection Draft Air Permit No. 0170004-012-AC Progress Energy Florida, Inc. Crystal River Power Plant Powder River Basin Coal Blend Trial Burn Citrus County,

Court, was published in said newspaper in the issues of
April 10th, 2006.

Affiant further says that the Citrus County Chronicle is a Newspaper published at Crystal River in said Citrus County, Florida, and that the said newspaper has heretofore been continuously published in Citrus County, Florida, each week and has been entered as second class mail matter at the post office in Inverness in said Citrus County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he/she 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 the said newspaper.

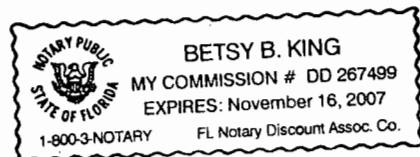
The forgoing instrument was acknowledged before me

This 10th day of April, 2006

By: Dian Chin Quee

who is personally known to me and who did take an oath.

Notary Public



428-0410 MCRN PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection
Draft Air Permit No. 0170004-012-AC
Progress Energy Florida, Inc.
Crystal River Power Plant
Powder River Basin Coal Blend Trial Burn
Citrus County, Florida

Applicant: The applicant for this project is Progress Energy Florida, Inc. The applicant's authorized representative and mailing address is: Mr. Bernie Cumble; Plant Manager of Crystal River Power Plant; Progress Energy Florida, Inc.; 100 Central Avenue, CN77; St. Petersburg, FL 33701.

Facility Location: Progress Energy Florida, Inc. operates the existing Crystal River Power Plant, which is located on Power Line Road north of Crystal River and west of U.S. Highway 19 in Citrus County, Florida.

Project: Units 4 and 5 at the existing Crystal River Plant are dry-bottom, wall-fired units manufactured by Combustion Engineering. Each unit currently fires bituminous coal as the primary fuel with a maximum heat input capacity of 6665 MMBtu per hour (760 MW). The applicant proposes a temporary trial burn to fire a blend of subbituminous Powder River Basin coal (PRB) and bituminous coal in existing Units 4 and 5. According to the original power plant site certification, these units were originally designed to fire PRB coal blends. Although a variety of blends may be tested, blends will contain no more than 30% PRB coal by weight. The two coals will be blended off-site and shipped to the plant as a premixed blend. No more than 150,000 tons of PRB coal blends will be delivered and fired during the trial burn. The trial burn will be completed within 90 calendar days of first firing PRB coal.

The applicant indicates that the firing of the proposed PRB coal blends will likely result in carbon monoxide (CO), nitrogen oxides (NOx), particulate matter (PM/PM10), sulfur dioxide (SO2) and volatile organic compounds (VOC) emissions comparable to that of the bituminous coal currently being fired. Based on standard EPA emission factors for bituminous and subbituminous coals, the firing of 150,000 tons of PRB coal blend will result in the following estimated potential emissions increases as a result of the project: 3 tons of CO; 3 tons of PM; 1 ton of PM10; 8 tons of SO2; and less than 1 ton of VOC. NOx emissions may decrease slightly. These predicted emissions increases are much less than the PSD significant emission rates. Therefore, this temporary project is not subject to PSD preconstruction review.

The boilers will continue to comply with all conditions of the current Title V air operation permit. Each boiler will be continuously monitored for opacity as well as NOx and SO2 emissions. Representative tests will be conducted for CO and particulate matter emissions. The draft permit includes requirements for: trial burn notification and schedule; PRB coal blend analyses and record keeping; boiler monitoring; electrostatic precipitator monitoring; and the submittal of a trial burn report.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address or phone number listed above.

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of fourteen (14) days from the date of publication of this Public Notice. Written comments must be provided to the Permitting Authority at the above address. Any written comments filed will be made available for public inspection. If written comments received result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within fourteen (14) days of publication of this Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner; the name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial rights will be affected by the agency determination; (c) A statement of how and when the petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Public Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available for this proceeding.

Published one (1) time in the Citrus County Chronicle
April 10, 2006.

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> ■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p style="font-size: 1.2em;">x <i>Kelvin Johnson</i></p>
<p>1. Article Addressed to:</p> <p style="text-align: center;">Mr. Bernie Cumble, Plant Manager Progress Energy Florida Crystal River Units 1&2 100 Central Avenue CN77 St. Petersburg, Florida 33701</p>	<p>B. Received by (Printed Name) C. Date of Delivery</p> <p style="font-size: 1.2em;"><i>Kelvin Johnson</i> 4-10</p>
<p>2. Article Number (Transfer from service label)</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>PS Form 3811, February 2004</p>	<p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail</p> <p><input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise</p> <p><input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>

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U.S. Postal Service™ CERTIFIED MAIL™ RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
<p>Mr. Bernie Cumble, Plant Manager</p>	<p>Postmark Here</p>
<p>Postage \$</p>	<p>Certified Fee</p>
<p>Return Receipt Fee (Endorsement Required)</p>	<p>Restricted Delivery Fee (Endorsement Required)</p>
<p>Total Postage & Fees \$</p>	
<p>Sent To</p> <p>Mr. Bernie Cumble, Plant Manager</p> <p>Street, Apt. No., or PO Box No. 100 Central Avenue CN77</p> <p>City, State, ZIP+4 St. Petersburg, Florida 33701</p>	
<p>PS Form 3800, June 2002 See Reverse for Instructions</p>	