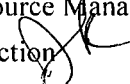



Florida Department of Environmental Protection

Memorandum

To: Trina Vielhauer, Division of Air Resource Management
Through: Jeff Koerner, New Source Review Section 
From: Tammy McWade, New Source Review Section 
Date: May 18, 2011
Subject: Draft Permit No. 0170004-030-AC / PSD-FL-383E
Progress Energy Florida, Inc.
Crystal River Power Plant, Units 4 and 5
Revised CO BACT Standard

Attached for your review is a draft PSD air construction permit revision package for the existing Crystal River Power Plant, which is located in Citrus County, north of Crystal River and west of U.S. Highway 19. In accordance with original permit PSD-FL-383 (as modified), the plant is installing several air pollution control systems. As required by Condition 9 in Subsection 3A of the permit, the applicant proposes a lower carbon monoxide (CO) standard from 0.17 to 0.11 lb/million British thermal units (MMBtu). Based on the information provided, the draft permit specifies a revised CO BACT of 0.10 lb/MMBtu, which represents the Best Available Control Technology (BACT) for the newly installed low-NO_x burners.

This project is a revision of the original PSD air construction permit to reduce the CO BACT standard, which requires a 30-day public comment period. The applicant elected to split this request from the previous project that authorized alternative sorbent trials (0170004-026-AC). The attached Technical Evaluation and Preliminary Determination provides a detailed description of the project and the rationale for permit issuance. Day 90 of the permitting time clock is June 14, 2011. I recommend your approval of the attached draft permit package.

Attachments

TLV/jfk/ttm

P.E. CERTIFICATION STATEMENT

PERMITTEE

Progress Energy Florida, Inc.
299 First Avenue North, CN-77.
St. Petersburg, Florida 33701

Draft Permit No. 0170004-030-AC
PSD-FL-383E
Crystal River Power Plant, Units 4 and 5
Revised CO BACT Standard
Citrus County, Florida

PROJECT DESCRIPTION

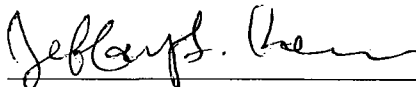
In accordance with original permit PSD-FL-383 (as modified), the plant constructed the following air pollution controls for existing Units 4 and 5 at the Crystal River Power Plant: low-NO_x burners and selective catalytic reduction systems to reduce nitrogen oxide (NO_x) emissions; new flue gas desulfurization systems to reduce sulfur dioxide (SO₂) emissions; a new acid mist mitigation (AMM) system with ammonia injection to reduce sulfuric acid mist (SAM) emissions; upgraded electrostatic precipitators to reduce particulate matter emissions; and new stack configurations. The existing facility is a major stationary source and the original project was subject to preconstruction review pursuant to Rule 62-212.400, Florida Administrative Code (F.A.C.) for the Prevention of Significant Deterioration (PSD) of Air Quality, including Best Available Control Technology (BACT) determinations for carbon monoxide (CO), particulate matter (PM), particulate matter with a mean aerodynamic diameter of 10 microns or less (PM₁₀), volatile organic compounds (VOC) and sulfuric acid mist (SAM) emissions.

As required by Condition 9.d in Subsection 3A of the permit, the applicant proposes to revise the original permit to replace the interim CO BACT of 0.17 pound per million British thermal units (lb/MMBtu) with a final CO BACT of 0.11 lb/MMBtu. Based on the available information, the revised draft permit specifies the following revised CO standard as BACT for the newly installed low-NO_x burners:

"As determined by CEMS data, CO emissions shall not exceed 0.10 lb/MMBtu of heat input based on a 30-day rolling average excluding periods of startup, shutdown and malfunction. As determined by CEMS data, CO emissions shall not exceed 680.0 lb/hour based on a 30-day rolling average for all periods of operation including startup, shutdown and malfunction."

The request to revise the CO BACT standard requires a 30-day public comment period. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is a revision of the original PSD air construction permit. The Department's full review of the project and rationale for issuing the draft permit is provided in the Technical Evaluation and Preliminary Determination.

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 Chapters 62-4 and 62-204 through 62-297, F.A.C. However, I have not evaluated and I do not certify any other aspects of the proposal (including, but not limited to, the electrical, civil, mechanical, structural, hydrological, geological, and meteorological features).



Jeff Koerner, P.E.
Registration Number 49441

5-18-11

(Date)



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

May 18, 2011

Electronically Sent – Received Receipt Requested

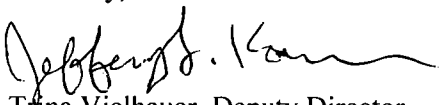
Mr. Robby Odom, Plant Manager
Progress Energy Florida
299 First Avenue North, CN77
St. Petersburg, FL 33701

Re: Draft Air Permit No. 0170004-030-AC
PSD-FL-383E
Crystal River Power Plant, Units 4 and 5
Revision of the CO BACT Standard

Dear Mr. Odom:

On February 1, 2011, you submitted an application requesting a revision to lower the carbon monoxide (CO) standard as required by Condition 9 in Subsection 3A of original Permit No. PSD-FL-383 for Units 4 and 5. The existing Crystal River Power Plant is located north of Crystal River and west of U.S. Highway 19 in Citrus County, Florida. Enclosed are the following documents: the Technical Evaluation and Preliminary Determination; the Draft Permit and Appendices; the Written Notice of Intent to Issue Air Permit; and the Public Notice of Intent to Issue Air Permit. 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 Jeff Koerner at 850/717-9083.

Sincerely,


For Tina Vielhauer, Deputy Director
Division of Air Resource Management

Enclosures

TLV/jfk/ttm

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

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

Progress Energy Florida, Inc.
299 First Avenue North, CN77
St. Petersburg, FL 33701

Authorized Representative:
Mr. Robby Odom, Plant Manager

Draft Permit No. 0170004-030-AC
PSD-FL-383E
Crystal River Power Plant, Units 4 and 5
CO BACT Revision
Citrus County, Florida

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: In accordance with original permit PSD-FL-383 (as modified), the plant is installing several air pollution control systems. As required by Condition 9 in the original permit, the applicant proposes to lower the carbon monoxide (CO) emission standard for existing Units 4 and 5 from the interim level of 0.17 lb/million British thermal units (MMBtu). Based on the available information, the draft permit specifies a CO standard of 0.10 lb/MMBtu to represent the Best Available Control Technology (BACT) for the newly installed low-NOx burners. No air quality analysis is required since the CO emissions standard is being reduced. This project is subject to the general preconstruction review requirements in Rule 62-212.300, Florida Administrative Code (F.A.C.) and is a revision of the BACT determination in the original air construction permit subject to Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. The attached Technical Evaluation and Preliminary Determination provides additional details of the project.

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, 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 Florida Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Bureau of Air Regulation's physical address is 111 South Magnolia Drive, Suite 4, Tallahassee, Florida and the mailing address is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Bureau of Air Regulation's phone number is 850/717-9000.

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 and 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 the proposed equipment will not adversely impact air quality and that the project will comply with all applicable 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

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

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 the address or phone number listed above. Pursuant to Rule 62-110.106(5) and (9), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within 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 and requests for a public meeting for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 30-day period. In addition, if a public meeting is requested within the 30-day comment period and conducted by the Permitting Authority, any oral and written comments received during the public meeting will also be considered by the Permitting Authority. If timely received comments result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

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 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 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 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 (in a proceeding initiated by another party) 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 when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact; (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 including an explanation of how the alleged facts relate to the specific rules or statutes; 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.

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

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.


For Trina Vielhauer, Deputy Director
Division of Air Resource Management

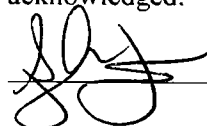
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Written Notice of Intent to Issue Air Permit package (including the Written Notice of Intent to Issue Air Permit, the Public Notice of Intent to Issue Air Permit, the Technical Evaluation and Preliminary Determination and the Draft Permit with Appendices) was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on 5/18/11 to the persons listed below.

Mr. Robby Odom, Progress Energy Florida (robby.odom@pgnmail.com)
Mr. John Hunter, Progress Energy Florida (john.hunter@pgnmail.com)
Mr. Chris Bradley, Progress Energy Florida (chris.bradley@pgnmail.com)
Mr. Scott H. Osbourn, P.E., Golder Associates, Inc. (sosbourn@golder.com)
Ms. Cindy Zhang-Torres, SWD Office (cindy.zhang-torres@dep.state.fl.us)
Ms. Cindy Mulkey, DEP Siting Office (cindy.mulkey@dep.state.fl.us)
Ms. Kathleen Forney, EPA Region 4 (forney.kathleen@epa.gov)
Ms. Heather Abrams, EPA Region 4 (abrams.heather@epa.gov)
Ms. Ana M. Oquendo, EPA Region 4 (oquendo.ana@epa.gov)
Ms. Vickie Gibson, DEP BAR Reading File (victoria.gibson@dep.state.fl.us)

Clerk Stamp

FILED 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.


(Clerk)

5/18/11
(Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection
Division of Air Resource Management, Bureau of Air Regulation

Project No. 0170004-030-AC / PSD-FL-383E
Progress Energy Florida, Inc., Crystal River Power Plant
Citrus County, Florida

Applicant: The applicant for this project is Progress Energy Florida, Inc. The applicant's authorized representative and mailing address is: Mr. Robby Odom, Plant Manager, Crystal River Power Plant, Progress Energy Florida, Inc., 299 First Avenue, North, CN77, St. Petersburg, FL 33701.

Facility Location: The existing Crystal River Power Plant is located north of Crystal River and west of U.S. Highway 19 in Citrus County, Florida.

Project: In accordance with original permit PSD-FL-383 (as modified), the plant is installing several air pollution control systems. As required by Condition 9 in the original permit, the applicant proposes to lower the carbon monoxide (CO) emission standard for existing Units 4 and 5 from the interim level of 0.17 lb/million British thermal units (MMBtu). Based on the available information, the draft permit specifies a CO standard of 0.10 lb/MMBtu to represent the Best Available Control Technology (BACT) for the newly installed low-NOx burners. No air quality analysis was required since the CO emissions standard is being reduced. This project is subject to the general preconstruction review requirements in Rule 62-212.300, Florida Administrative Code (F.A.C.) and is a revision of the BACT determination in the original air construction permit subject to Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

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, 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 Florida Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Bureau of Air Regulation's physical address is 111 South Magnolia Drive, Suite 4, Tallahassee, Florida and the mailing address is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Bureau of Air Regulation's phone number is 850/717-9000.

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 and phone number listed above. In addition, electronic copies of these documents are available from the following web site and by entering draft permit number:
<http://www.dep.state.fl.us/air/emission/apds/default.asp>.

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 the proposed equipment will not adversely impact air quality and that the project will comply with all applicable 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 and requests for a public meeting for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 30-day period. In addition, if a public meeting is requested within the 30-day comment period and conducted by the Permitting Authority, any oral and written comments received during the public meeting will also be considered by the Permitting Authority. If timely received comments result in a significant change to

(Public Notice to be Published in the Newspaper)

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

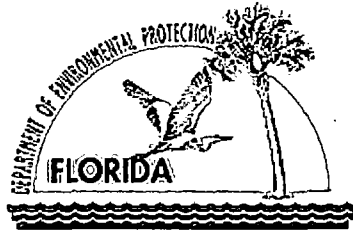
the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

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 (Telephone: 850/245-2241; Fax: 850/245-2303). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 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 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 (in a proceeding initiated by another party) 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 when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact; (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 including an explanation of how the alleged facts relate to the specific rules or statutes; 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 in this proceeding.



**TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION**

APPLICANT

Progress Energy Florida, Inc.
299 First Avenue North, CN77
St. Petersburg, FL 33701

Crystal River Power Plant
ARMS Facility ID No. 0170004

PROJECT

Draft Permit No. 0170004-030-AC / PSD-FL-383E
Revised CO BACT Standard

COUNTY

Citrus County, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
New Source Review Section
2600 Blair Stone Road, MS#5505
Tallahassee, Florida 32399-2400

May 18, 2011

1. GENERAL PROJECT INFORMATION

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 F.A.C.: 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 (General Preconstruction Review, Preconstruction Review for the Prevention of Significant Deterioration (PSD) of Air Quality Review and Best Available Control Technology (BACT); 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). PSD applicability and the preconstruction review requirements of Rule 62-212.400, F.A.C. are discussed in Section 3 of this Technical Evaluation and Preliminary Determination (TEPD).

Federal Regulations

The Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 identifies New Source Performance Standards (NSPS) for a variety of industrial activities. Part 61 specifies National Emissions Standards for Hazardous Air Pollutant (NESHAP) based on specific pollutants. Part 63 specifies NESHAP provisions based on the Maximum Achievable Control Technology (MACT) for given source categories. Federal regulations are adopted in Rule 62-204.800, F.A.C. Additional details of the applicable federal regulations are provided in Section 3 of this report.

The applicable requirements of specific state and federal regulations are specified under the Department's review in Section 4 of this TEPD.

Facility Description and Location

The Crystal River Power Plant is an electrical generating plant categorized under Standard Industrial Classification Code No. 4911 for electrical services. The existing power plant is located at the Crystal River Energy Complex in Citrus County, north of Crystal River and west of U.S. Highway 19. The Crystal River Power Plant consists of the following units: four coal-fired steam generating units with electrostatic precipitators; two natural draft cooling towers; two sets of mechanical draft cooling towers; coal and ash material handling facilities; and relocatable diesel-fired generators. The Crystal River Energy Complex also includes a nuclear unit and associated facilities permitted under the same Title V air operation permit. The UTM coordinates are Zone 17, 334.3 kilometers East and 3204.5 kilometers North.

Primary Regulatory Categories

- The facility is a major source of hazardous air pollutants (HAP).
- The facility operates units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is an existing PSD major stationary source in accordance with Rule 62-212.400, F.A.C.
- The existing facility is subject to Power Plant Site Certification No. PA 77-09.

PSD Permit History

- In March of 2007, the Department issued Permit No. 0170004-013-AC authorizing the installation of new selective catalytic reduction (SCR) systems on Units 4 and 5 to reduce nitrogen oxides (NO_x). The purpose of the project was to implement the Clean Air Interstate Rule (CAIR) and the Clean Air Mercury Rule (CAMR). It did not trigger PSD preconstruction review.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

- In May of 2007, the Department issued Permit No. PSD-FL-383, which superseded Permit No. 0170004-013-AC and authorized the following new equipment in addition to SCR systems: new low-NO_x burners for Units 4 and 5; new wet flue gas desulfurization (FGD) systems for Units 4 and 5 to reduce sulfur dioxide (SO₂) and other acid gas emissions; a new acid mist mitigation (AMM) system for Units 4 and 5 to reduce sulfuric acid mist (SAM) emissions; upgraded electrostatic precipitators (ESP) for Units 4 and 5 to reduce emissions of particulate matter (PM) and particulate matter with a mean aerodynamic diameter of 10 microns or less (PM₁₀); new stack configurations for Units 4 and 5; and a new carbon burn out unit. The project also allowed the use of a higher sulfur coal to take advantage of the new wet flue gas desulfurization systems. As a result, the project was subject to PSD preconstruction review for carbon monoxide (CO), PM/PM₁₀, SAM and volatile organic compounds (VOC).
- In February of 2009, Permit No. PSD-FL-383A (Project No. 0170004-019-AC) revised the original permit to require operation of the wet FGD and SCR systems in response to the Environmental Protection Agency's revised 8-hour ozone standard.
- In May of 2009, Permit No. PSD-FL-383B (Project No. 0170004-022-AC) revised the original permit for: include a temporary alternate compliance demonstration for carbon monoxide emissions for Unit 5 until the continuous emissions monitoring system is installed during the outage to tie in the new wet FGD system and stack; correct as-built equipment descriptions for the gypsum storage and handling systems; acknowledge that the limestone crushing operations will be subject to the federal provisions in New Source Performance Standards (NSPS) Subpart OOO of 40 Code of Federal Regulations (CFR) 60; and clarify the timeframes for compliance monitoring following completion of construction, startup and shakedown of the air pollution control systems.
- In October of 2010, Permit No. PSD-FL-383C (Project No. 0170004-023-AC) revised the original permit to: authorize limited periods of shutdown of the acid mist mitigation system for maintenance and repair; and clarify that the deadline for submitting an application to revise the Title V air operation permit is after completing the work for both units.
- In May of 2011, Permit No. PSD-FL-383D (Project No. 0170004-026-AC) revised the original permit for:
 - The temporary installation and operation of a demonstration injection system at Units 4 and 5 using alternative sorbents to evaluate additional methods for reducing SAM emissions;
 - Establish a temporary opacity limit effective during the alternative sorbent trials;
 - Temporary trials of several fuel additives to evaluate each for anti-slagging properties, which may enhance boiler operation as well as reduce the initial conversion of fuel sulfur to SAM; and
 - Revise the current 3.13% maximum coal sulfur specification to an equivalent of 5.5 lb SO₂/million British thermal units (MMBtu).

For this current project, Permit No. PSD-FL-383E (Project No. 0170004-030-AC), the CO BACT standard for Units 4 and 5 will be lowered.

Project Description

Only the following existing emissions units will be affected by the proposed project.

EU No.	Description
003	Unit 5 Fossil Fuel Steam Generator
004	Unit 4 Fossil Fuel Steam Generator

In accordance with the requirements of Condition 9.d in Subsection 3A of the permit, the applicant proposes to revise the CO BACT from 0.17 to 0.11 lb/MMBtu based on initial operation.

Processing Schedule

02/01/2011 Application received; requested additional information.
03/15/2011 Received additional information; application complete.

2. PSD APPLICABILITY REVIEW

General PSD Applicability

The Department regulates major stationary sources in accordance with Florida's PSD program pursuant to Rule 62-212.400, F.A.C. PSD preconstruction review is required in areas that are currently in attainment with the state and federal Ambient Air Quality Standards (AAQS) or areas designated as "unclassifiable" for these regulated pollutants. As defined in Rule 62-210.200, F.A.C., a facility is considered a "major stationary source" if it emits or has the potential to emit 5 tons per year of lead, 250 tons per year or more of any PSD pollutant, or 100 tons per year or more of any PSD pollutant and the facility belongs to one of the 28 listed PSD major facility categories. PSD pollutants include: CO, NO_x, SO₂, PM, PM₁₀, PM_{2.5}, (VOC), lead (Pb), fluorides (F), SAM, hydrogen sulfide (H₂S), total reduced sulfur (TRS) including H₂S, reduced sulfur compounds including H₂S and mercury (Hg).

For major stationary sources, PSD applicability is based on emissions thresholds known as the "significant emission rates" as defined in Rule 62-210.200, F.A.C. Emissions of PSD pollutants from the project exceeding these rates are considered "significant" and the Best Available Control Technology (BACT) must be employed to minimize emissions of each PSD pollutant. Although a facility may be "major" for only one PSD pollutant, a project must include BACT controls for any PSD pollutant that exceeds the corresponding significant emission rate. Rule 62-210.200, F.A.C. defines "BACT" as:

An emission limitation, including a visible emissions standard, based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account:

- 1. Energy, environmental and economic impacts, and other costs;*
- 2. All scientific, engineering, and technical material and other information available to the Department; and*
- 3. The emission limiting standards or BACT determinations of Florida and any other state;*

determines is achievable through application of production processes and available methods, systems and techniques (including fuel cleaning or treatment or innovative fuel combustion techniques) for control of each such pollutant.

If the Department determines that technological or economic limitations on the application of measurement methodology to a particular part of an emissions unit or facility would make the imposition of an emission standard infeasible, a design, equipment, work practice, operational standard or combination thereof, may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reductions achievable by implementation of such design, equipment, work practice or operation.

Each BACT determination shall include applicable test methods or shall provide for determining compliance with the standard(s) by means which achieve equivalent results.

In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60, 61, and 63.

In addition, applicants must provide an Air Quality Analysis that evaluates the predicted air quality impacts resulting from the project for each PSD pollutant.

PSD Applicability for the Project

The project is located in Citrus County, which is in an area that is currently in attainment with (or designated as unclassifiable for) the state and federal Ambient Air Quality Standards (AAQS). As required by the original PSD permit, the project will reduce the interim CO BACT standard below 0.17 lb/MMBtu, which will not result in an increase in emissions.

3. DEPARTMENT REVIEW

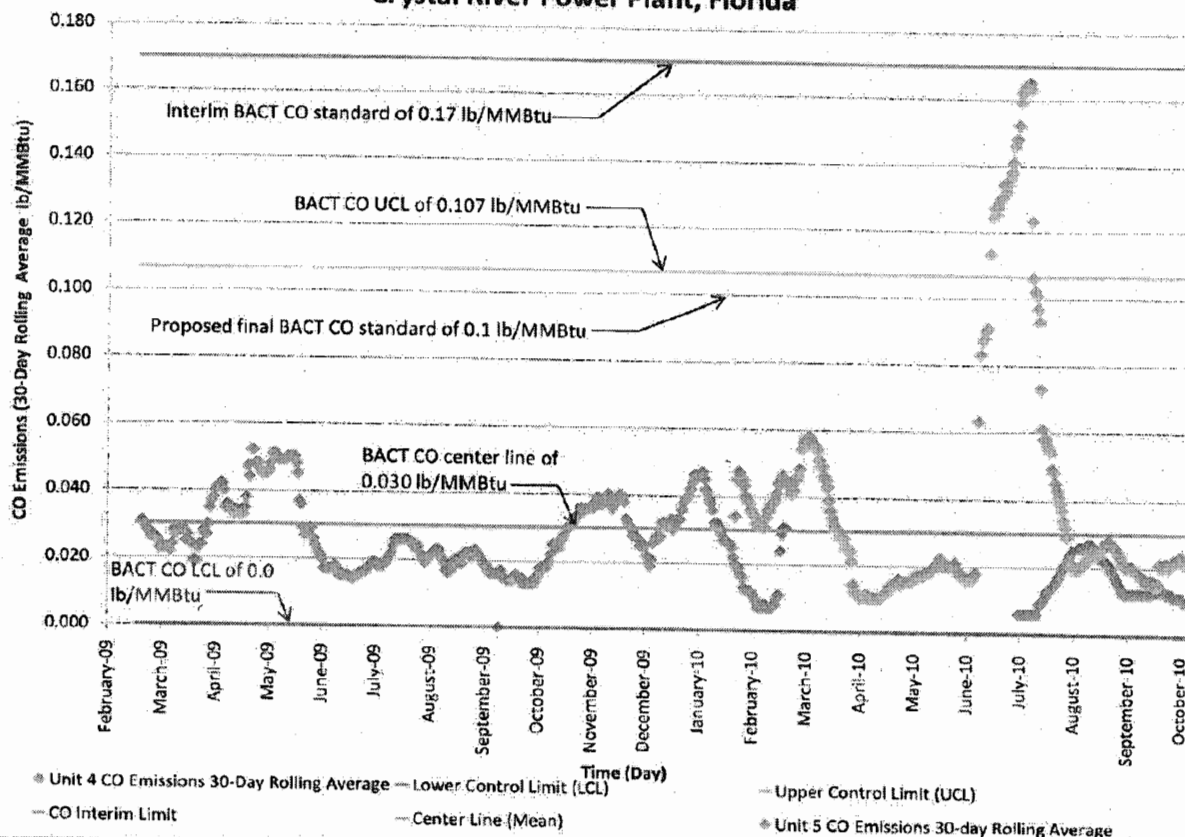
Permit No. 0170004-026-AC (PSD-FL-383D)

The applicant requested the following revisions to Permit No. 0170004-026-AC (PSD-FL-383D), which affects Unit 4 (EU 004) and Unit 5 (EU 003) fossil fuel steam generators.

Subsection 3.A, Condition 9.c and d: Reduce the CO Emission Limit

Request: Permit No. PSD-FL-383D specifies an interim CO BACT standard of 0.17 lb/MMBtu based on CEMS data. Within 24 months of commencing commercial operation of each unit with the new low-NO_x burners, the permittee is also required to submit an application proposing a revised (lower) final BACT standard. The final standard must be based on actual CO emissions data collected for initial operation after completing installation of the new low-NO_x burners. The applicant summarized this data in the following graph.

Figure 1. Unit 4 and 5 CO Control Chart
Crystal River Power Plant, Florida



Specifically, the applicant requests a reduction in the CO BACT standard from 0.17 to 0.11 lb/MMBtu.

Response: During the initial operation of the newly installed low-NO_x burners, there were several CO emissions excursions causing elevated levels of the 30-day rolling average, particularly for Unit 5. Except for this spike in CO emissions during the end of June and beginning of July, the 30-day rolling average seemed to

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

be less than 0.06 lb/MMBtu. The applicant explained that the CO emissions spike was likely due to the boiler oxygen levels. A rigorous analysis of this data was not conducted. The draft permit reduces the CO BACT from 0.17 to 0.10 lb/MMBtu based on a 30-day rolling average. This emission level represents BACT for the newly installed low-NOx burner system and is in line with the original TEPD for this project. Since this permitting action involves the revision of a BACT standard, a 30-day public comment period is required.

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. Tammy McWade is the project engineer responsible for reviewing the application and drafting the permit changes. Jeff Koerner edited the draft permit documents. 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.

DRAFT PERMIT

PERMITTEE

Progress Energy Florida, Inc.
Crystal River Power Plant
299 First Avenue North, CN-77
St. Petersburg, Florida 33701

Authorized Representative:
Mr. Robby Odom, Plant Manager

Air Permit No. PSD-FL-383E
Project No. 0170004-030-AC
Facility ID No. 0170004
Crystal River Power Plant, Units 4 and 5
Pollution Controls Project
Permit Expires: March 1, 2013

PROJECT

This is the final air construction permit revision, which modifies original Permit No. PSD-FL-383 that authorized new air pollution controls on Units 4 and 5. This modification revises the carbon monoxide standard for Units 4 and 5. The proposed work is being conducted at the existing Crystal River Power Plant, which is a power plant categorized under Standard Industrial Classification No. 4911. The existing plant is located north of Crystal River and west of U.S. Highway 19 in Citrus County, Florida. The UTM coordinates are Zone 17, 334.3 kilometers East and 3204.5 kilometers North.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit. As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

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 conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, 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 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

(DRAFT)

Michael P. Halpin, P.E., Director
Division of Air Resource Management

(Date)

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit with Appendices) was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on _____ **(DRAFT)** _____ to the persons listed below.

Mr. Robby Odom, Progress Energy Florida (robby.odom@pgnmail.com)
Mr. John Hunter, Progress Energy Florida (john.hunter@pgnmail.com)
Mr. Chris Bradley, Progress Energy Florida (chris.bradley@pgnmail.com)
Mr. Scott H. Osbourn, P.E., Golder Associates, Inc. (sosbourn@golder.com)
Ms. Cindy Zhang-Torres, SWD Office (cindy.zhang-torres@dep.state.fl.us)
Ms. Cindy Mulkey, DEP Siting Office (cindy.mulkey@dep.state.fl.us)
Ms. Kathleen Forney, EPA Region 4 (forney.kathleen@epa.gov)
Ms. Heather Abrams, EPA Region 4 (abrams.heather@epa.gov)
Ms. Ana M. Oquendo, EPA Region 4 (oquendo.ana@epa.gov)
Ms. Vickie Gibson, DEP BAR Reading File (victoria.gibson@dep.state.fl.us)

Clerk Stamp

FILED 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.

(DRAFT)

(Clerk)

(Date)

SECTION 1. GENERAL INFORMATION

FACILITY AND PROJECT DESCRIPTION

The existing Crystal River Power Plant consists of the following: four coal-fired fossil fuel steam generating units with electrostatic precipitators; two natural draft cooling towers; two sets of mechanical draft cooling towers (one set of “helper” cooling towers and a second set of “modular” cooling towers); coal and ash material handling facilities; and relocatable diesel fired generators. The Crystal River Energy Complex includes the nuclear unit and associated facilities permitted under the same Title V air operation permit.

Due to the Environmental Protection Agency’s revised 8-hour ozone standard, the permittee shall install and continuously operate new low-NO_x burners, new selective catalytic reduction systems, new flue gas desulfurization systems, and new stack configurations for existing Units 4 and 5 as authorized by this permit. The installation and use of these control devices require a demonstration of continuous compliance with new standards for nitrogen oxides (NO_x) and sulfur dioxide (SO₂).

In conjunction with the new control equipment, the permit also authorizes the following: a new carbon burn-out (CBO™) system to reburn fly ash, a new blend of bituminous/sub-bituminous coal, a trial burn to evaluate coals blends with up to 30% petroleum coke, and a trial burn to evaluate a new fuel additive intended to reduce slagging and improve emissions performance. This permit also establishes the maximum heat input rates for Units 4 and 5. The combination of new fuel blends and control equipment will result in PSD-significant emissions increases of carbon monoxide (CO), particulate matter (PM/PM₁₀), sulfuric acid mist (SAM), and volatile organic compounds (VOC). Therefore, the permittee is also required to perform the following work and install the following additional equipment as the Best Available Control Technologies (BACT) for these pollutants: the new low-NO_x burners (CO, PM/PM₁₀ and VOC); modifications to the existing electrostatic precipitators (PM/PM₁₀ and SAM); and new acid mist mitigation (AMM) systems (SAM).

This permit affects the following emissions units:

EU No.	New/Existing	Emission Unit Description
003	Existing	Unit 5 Fossil Fuel Steam Generator
004	Existing	Unit 4 Fossil Fuel Steam Generator
016	Existing	Coal and Ash Material Handling Activities for Coal-Fired Steam Generators
023	New	Limestone and Gypsum Material Handling Activities
024	New	CBO Fluidized Bed Combustor
025	New	CBO Feed Fly Ash Silo
026	New	CBO Product Fly Ash Storage Dome and Truck Loadout Silo
xxx	New	Temporary Material Storage System and Dust Collector

REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility operates units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.
- The existing facility is subject to Power Plant Site Certification No. PA 77-09.

SECTION 1. GENERAL INFORMATION

PROJECT HISTORY

Permit No. 0170004-013-AC authorized the installation of new selective catalytic reduction (SCR) systems on Units 4 and 5 to reduce NO_x. The purpose of the project was to implement the Clean Air Interstate Rule (CAIR) and the Clean Air Mercury Rule (CAMR). It did not trigger PSD preconstruction review.

Permit No. PSD-FL-383 (Project No. 0170004-016-AC) superseded Permit No. 0170004-013-AC and authorized the following new equipment in addition to SCR systems: new low-NO_x burners (LNB) for Units 4 and 5; new wet flue gas desulfurization (FGD) systems for Units 4 and 5 to reduce SO₂ and other acid gas emissions; a new acid mist mitigation (AMM) system for Units 4 and 5 to reduce SAM emissions; upgraded electrostatic precipitators (ESP) for Units 4 and 5 to reduce particulate matter emissions; new stack configurations for Units 4 and 5; and a new carbon burn out unit. The purpose of the project was to implement the CAIR and CAMR and it was subject to PSD preconstruction review.

Permit No. PSD-FL-383A (Project No. 0170004-019-AC) revised the original permit to require operation of the wet FGD and SCR systems in response to the Environmental Protection Agency's revised 8-hour ozone standard.

Permit No. PSD-FL-383B (Project No. 0170004-022-AC) revised the original permit to: include a temporary alternate compliance demonstration for carbon monoxide emissions for Unit 5 until the continuous emissions monitoring system is installed during the outage to tie in the new wet FGD system and stack; correct as-built equipment descriptions for the gypsum storage and handling systems; acknowledge that the limestone crushing operations will be subject to the federal provisions in NSPS Subpart OOO of 40 CFR 60; and clarify the timeframes for compliance monitoring following completion of construction, startup and shakedown of the air pollution control systems.

Permit No. PSD-FL-383C (Project No. 0170004-023-AC) revised the original permit to: authorize limited periods of shutdown of the AMM system for maintenance and repair; and clarify that the deadline for submitting an application to revise the Title V air operation permit is after completing the work for both units.

Permit No. PSD-FL-383D (Project No. 0170004-026-AC) revised the original permit to authorize the following:

- The temporary installation and operation of a demonstration injection system at Units 4 and 5 using alternative sorbents to evaluate additional methods for reducing SAM emissions;
- Establish a temporary opacity limit effective during the alternative sorbent trials;
- Temporary trials of several fuel additives to evaluate each for anti-slugging properties, which may enhance boiler operation as well as reduce the initial conversion of fuel sulfur to SAM; and
- Revise the current 3.13% maximum coal sulfur specification to an equivalent of 5.5 lb SO₂/million British thermal units (MMBtu).

For this current project, Permit No. PSD-FL-383E (Project No. 0170004-030-AC), the CO BACT standard for Units 4 and 5 is revised from an interim standard of 0.17 pound per million British thermal units (lb/MMBtu) to a final standard of 0.10 lb/MMBtu.

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Section 2. Administrative Requirements

Section 3. Emissions Units Specific Conditions

Subsection A. Unit 4, Unit 5 and CBO Unit – Pollution Control Projects

Subsection B. Material Handling Activities for Limestone and Gypsum

Subsection C. Material Handling Activities for CBO System

SECTION 1. GENERAL INFORMATION

Subsection D. Units 4 and 5 – Temporary Trial Period with up to 50% Sub-bituminous Coal

Subsection E. Units 1, 2, 4 and 5 – Temporary Trial Period with Fuel Additive

Subsection F. Units 4 and 5 – Temporary Trial Period with up to 30% Petroleum Coke

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Section 4. Appendices

Appendix A. Citation Formats

Appendix B. General Conditions

Appendix C. Common Conditions

Appendix D. Common Testing Requirements

Appendix E. Summary of Final BACT Determinations

Appendix F. Standard Continuous Monitoring Requirements

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SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Unit 4, Unit 5 and CBO Unit – Pollution Control Projects

{Note: For clarity, the draft permit package reflects only the revised CO BACT condition in a strike-through and underline format. The final permit package will incorporate the revised CO standard into the full permit.}

This section of the permit addresses the following emissions units.

EU No.	Emission Unit Description
003	Unit 5 is a fossil fuel-fired electric utility steam generator consisting of a pulverized coal, dry bottom, wall-fired boiler rated at 760 MW, which began commercial operation in 1984. Air pollution control equipment will include: low-NOx burners, selective catalytic reduction (SCR) systems, flue gas desulfurization (FGD) systems, acid mist mitigation systems and an electrostatic precipitator (ESP). The flue gas exhausts at 130° F with a volumetric flow rate of 2,205,195 acfm through a stack that is 30.5 feet in diameter and 550 feet tall. Units 4 and 5 share a common chimney with separate internal stack liners.
004	Unit 4 is a fossil fuel-fired, electric utility steam generator consisting of a pulverized coal, dry bottom, wall-fired boiler rated at 760 MW, which began commercial operation in 1982. Air pollution control equipment will include: low-NOx burners, selective catalytic reduction (SCR) systems, flue gas desulfurization (FGD) systems, acid mist mitigation systems, and an electrostatic precipitator (ESP). The flue gas exhausts at 130° F with a volumetric flow rate of 2,205,195 acfm through a stack that is 30.5 feet in diameter and 550 feet tall. Units 4 and 5 share a common chimney with separate internal stack liners.

9. Standards Based on CEMS: Including the emissions from the CBO unit, emissions from Units 4 and 5 each shall not exceed the following standards based on data collected by the CEMS.
- NO_x Emissions:* As determined by CEMS data, NO_x emissions shall not exceed 2,085 tons per year per unit based on a 12-month rolling total for all periods of operation including startup, shutdown and malfunction. [Application No. 0170004-016-AC; Rules 62-4.070(3), 62-4.080 and 62-212.400(12), F.A.C.]
 - SO₂ Emissions:* As determined by CEMS data, SO₂ emissions shall not exceed 0.27 lb/MMBtu of heat input based on a 30-day rolling average for all periods of operation including startup, shutdown and malfunction. As determined by CEMS data, SO₂ emissions shall not exceed 1944.0 lb/hour per unit based on a 24-hour block average excluding startup, shutdown and malfunction of the FGD system. [Application No. 0170004-016-AC; Rules 62-4.070(3), 62-4.080 and 62-212.400(12), F.A.C.]
 - CO Emissions:* As determined by CEMS data, CO emissions shall not exceed 0.10 lb/MMBtu of heat input based on a 30-day rolling average excluding periods of startup, shutdown and malfunction. As determined by CEMS data, CO emissions shall not exceed 680.0 lb/hour based on a 30-day rolling average for all periods of operation including startup, shutdown and malfunction. *{Permitting Note: Project No. 0170004-030-AC removed the initial interim CO limit of "0.17 lb/MMBtu" and established the final CO limit.}* [Rule 62-212.400 (BACT), F.A.C.]

Livingston, Sylvia

From: Livingston, Sylvia
Sent: Wednesday, May 18, 2011 4:40 PM
To: 'robby.odom@pgnmail.com'
Cc: 'john.hunter@pgnmail.com'; 'chris.bradley@pgnmail.com'; 'sosbourn@golder.com'; Zhang-Torres; Mulkey, Cindy; 'forney.kathleen@epa.gov'; 'abrams.heather@epa.gov'; 'oquendo.ana@epa.gov'; Gibson, Victoria; McWade, Tammy; Koerner, Jeff; Walker, Elizabeth (AIR)
Subject: Progress Energy Florida, Inc - Crystal River Power Plant; 0170004-030-AC/ PSD-FL-383E
Attachments: 0170004-030-AC_Intent.pdf

Dear Sir/ Madam:

Attached is the official **Notice of Intent to Issue** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0170004.030.AC.D_pdf.zip

Owner/Company Name: FLORIDA POWER CORPORATION D/B/A PROGRESS

Facility Name: CRYSTAL RIVER POWER PLANT

Project Number: 0170004-030-AC / PSD-FL-383E

Permit Status: DRAFT

Permit Activity: CONSTRUCTION

Facility County: CITRUS

Processor: Jeff Koerner

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "*Air Permit Documents Search*" website at <http://appprod.dep.state.fl.us/air/emission/apds/default.asp>.

Permit project documents are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation

Thanks,

Sylvia Livingston
Division of Air Resource Management (DARM)
Department of Environmental Protection
850/717-9043 (New Phone)
sylvia.livingston@dep.state.fl.us

Livingston, Sylvia

From: Odom, Robby A [Robby.Odom@pgnmail.com]
Sent: Wednesday, May 18, 2011 10:05 PM
To: Livingston, Sylvia
Subject: RE: Progress Energy Florida, Inc - Crystal River Power Plant; 0170004-030-AC/ PSD-FL-383E

I am able to view these documents.

Thank you,

Robb Odom

Plant Manager
Crystal River Steam Plant
p. 352-563-4910
c. 352-464-7003

From: Livingston, Sylvia [mailto:Sylvia.Livingston@dep.state.fl.us]
Sent: Wednesday, May 18, 2011 4:40 PM
To: Odom, Robby A
Cc: Hunter, John J (Jamie); Bradley, Chris; sosbourn@golder.com; Zhang-Torres; Mulkey, Cindy; forney.kathleen@epa.gov; abrams.heather@epa.gov; oquendo.ana@epa.gov; Gibson, Victoria; McWade, Tammy; Koerner, Jeff; Walker, Elizabeth (AIR)
Subject: Progress Energy Florida, Inc - Crystal River Power Plant; 0170004-030-AC/ PSD-FL-383E

Dear Sir/ Madam:

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http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0170004.030.AC.D_pdf.zip

Owner/Company Name: FLORIDA POWER CORPORATION D/B/A PROGRESS
Facility Name: CRYSTAL RIVER POWER PLANT
Project Number: 0170004-030-AC / PSD-FL-383E
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Processor: Jeff Koerner

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Livingston, Sylvia

From: Hunter, John J (Jamie) [John.Hunter@pgnmail.com]
Sent: Wednesday, May 18, 2011 4:48 PM
To: Livingston, Sylvia
Subject: RE: Progress Energy Florida, Inc - Crystal River Power Plant; 0170004-030-AC/ PSD-FL-383E

Received.

From: Livingston, Sylvia [mailto:Sylvia.Livingston@dep.state.fl.us]
Sent: Wednesday, May 18, 2011 4:40 PM
To: Odom, Robby A
Cc: Hunter, John J (Jamie); Bradley, Chris; sosbourn@golder.com; Zhang-Torres; Mulkey, Cindy; forney.kathleen@epa.gov; abrams.heather@epa.gov; oquendo.ana@epa.gov; Gibson, Victoria; McWade, Tammy; Koerner, Jeff; Walker, Elizabeth (AIR)
Subject: Progress Energy Florida, Inc - Crystal River Power Plant; 0170004-030-AC/ PSD-FL-383E

Dear Sir/ Madam:

Attached is the official **Notice of Intent to Issue** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0170004.030.AC.D_pdf.zip

Owner/Company Name: FLORIDA POWER CORPORATION D/B/A PROGRESS
Facility Name: CRYSTAL RIVER POWER PLANT
Project Number: 0170004-030-AC / PSD-FL-383E
Permit Status: DRAFT
Permit Activity: CONSTRUCTION
Facility County: CITRUS
Processor: Jeff Koerner

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Permit project documents addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation

Thanks,

McWade, Tammy

From: Koerner, Jeff
Sent: Tuesday, May 03, 2011 1:28 PM
To: McWade, Tammy
Subject: FW: Crystal River - Revised CO BACT

Just FYI ...

-----Original Message-----

From: Koerner, Jeff
Sent: Tuesday, May 03, 2011 1:28 PM
To: 'Hunter, John J (Jamie)'
Subject: FW: Crystal River - Revised CO BACT

Jamie,

Without the corresponding oxygen levels, the only thing that seems certain is that CO emissions for Unit 5 were unusually high in late June/July 2010. Because of the magnitude of this excursion from the rest of the data, it's questionable that this period represents "good" or even "normal" operation. Excluding this period, operation for both units was less than 0.06 lb/MMBtu (30-day rolling average).

I would be willing to establish a revised CO BACT of 0.10 lb/MMBtu (30-day rolling average), which was the target in my original review.

Let me know.

Thanks!

Jeff Koerner
850-717-9083

-----Original Message-----

From: Koerner, Jeff
Sent: Wednesday, April 27, 2011 1:33 PM
To: 'Hunter, John J (Jamie)'
Subject: RE: Crystal River - Alt. Sorbent Trial, Pre-Draft

Maybe have a proposal for you next week ...

Jeff

-----Original Message-----

From: Hunter, John J (Jamie) [mailto:John.Hunter@pgnmail.com]
Sent: Wednesday, April 27, 2011 12:39 PM
To: Koerner, Jeff
Subject: RE: Crystal River - Alt. Sorbent Trial, Pre-Draft

Yes, thanks...

McWade, Tammy

From: Hunter, John J (Jamie) [John.Hunter@pgnmail.com]
Sent: Wednesday, May 18, 2011 2:09 PM
To: Koerner, Jeff
Cc: McWade, Tammy
Subject: RE: Crystal River - CO Revision

Looks good. Thanks...

From: Koerner, Jeff [mailto:Jeff.Koerner@dep.state.fl.us]
Sent: Wednesday, May 18, 2011 2:07 PM
To: Hunter, John J (Jamie)
Cc: McWade, Tammy
Subject: Crystal River - CO Revision

Jamie,

The CO revision package is ready. In the permit, basically Condition 9 in Subsection 3A will be revised to:

c. CO Emissions (~~Interim~~): As determined by CEMS data, CO emissions shall not exceed ~~0.17~~ 0.10 lb/MMBtu of heat input based on a 30-day rolling average excluding periods of startup, shutdown and malfunction. As determined by CEMS data, CO emissions shall not exceed ~~1156.0~~ 680.0 lb/hour based on a 30-day rolling average for all periods of operation including startup, shutdown and malfunction. [Rule 62-212.400 (BACT), F.A.C.]

~~d. CO Emissions (Final): Within 24 months of commencing commercial operation of each unit with the new low-NOX burners, the permittee shall submit an application proposing a revised (lower) final BACT standard. The final standard shall be based on actual CO emissions data collected for initial operation after completing installation of the new low-NOX burners. There may be separate standards proposed for different fuels. [Rule 62-212.400(BACT), F.A.C.]~~

Let me know and we'll send it out ...

Jeff

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Herschel T. Vinyard Jr. is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Copy the url below to a web browser to complete the DEP survey: <http://survey.dep.state.fl.us/?refemail=Jeff.Koerner@dep.state.fl.us> Thank you in advance for completing the survey.

McWade, Tammy

From: Koerner, Jeff
Sent: Thursday, June 30, 2011 12:42 PM
To: McWade, Tammy
Subject: FW: Crytsal River - Revised CO Limit, Project No. 0170004-030-AC

Just FYI ...

From: Moore, Ronni
Sent: Thursday, June 30, 2011 12:40 PM
To: Koerner, Jeff
Subject: FW: Crytsal River - Revised CO Limit, Project No. 0170004-030-AC

Nothing! Have a good one.

Ronda L. Moore
Assistant General Counsel



Please consider the environment before printing this email.

From: Crandall, Lea
Sent: Thursday, June 30, 2011 12:35 PM
To: Moore, Ronni
Subject: RE: Crytsal River - Revised CO Limit, Project No. 0170004-030-AC

No ma'am! ☺

Lea Crandall
Agency Clerk
Office of General Counsel
3900 Commonwealth Blvd., MS 35
Tallahassee, FL 32399-3000
Phone (850) 245-2212
Fax: (850) 245-2303

Florida's Water - Ours to Protect: Check out the latest information on Florida Water Issues at <http://www.protectingourwater.org/> presented by the Florida Department of Environmental Protection.

From: Moore, Ronni
Sent: Thursday, June 30, 2011 11:30 AM
To: Crandall, Lea
Subject: FW: Crytsal River - Revised CO Limit, Project No. 0170004-030-AC

Lea, did we happen to receive a petition on this intended permit? THANKS!!! Ronni

Ronda L. Moore



From: Koerner, Jeff
Sent: Thursday, June 30, 2011 10:53 AM
To: Moore, Ronni
Subject: Crytsal River - Revised CO Limit, Project No. 0170004-030-AC

Ronni,

The 30-day public comment period has ended for this project.

Did OGC receive any comments, extensions or petitions?

I do not expect any.

Jeff