



Florida Department of Environmental Protection

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

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Mimi A. Drew
Secretary

PERMITTEE

Calpine Corporation
717 Texas Avenue, Suite 1000
Houston, Texas 77002

Auburndale Peaker Energy Center/Osprey Energy Center	
DEP File No.	1050334-009-AC
SIC No.	4911
Expires:	December 31, 2010

Authorized Representative:

Mr. Jason Goodwin, Director – Environmental, Health
and Safety

PROJECT

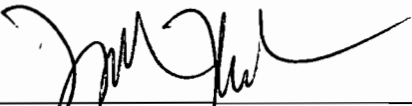
This permit modification revises certain specific conditions of air construction permits 1050221-004-AC and PSD-FL-287 that authorized the original construction of the Auburndale Peaker Energy Center and the Osprey Energy Center, respectively. The plant complex consists of a combination of simple cycle and combined cycle combustion turbines. The nominal generating capacity of the complex is 660 megawatts (MW). The plant site is located at 1651 West Derby Avenue, Auburndale, Florida, in Polk County. The reference Universal Transverse Mercator (UTM) Coordinates are Zone 17, 420.8 kilometers (km) East and 3103.3 km North.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions).

STATEMENT OF BASIS

This air pollution construction permit modification 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.) and Title 40, Parts 60 and 63 of the Code of Federal Regulations (CFR). The permittee is authorized to install the proposed equipment 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.

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.



Joseph Kahn, Director
Division of Air Resource Management

10/4/10
(Date)

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit Package (including the Final Permit and Final Determination), or a link to these documents available electronically on a publicly accessible server, was sent by electronic mail with received receipt requested to the persons listed below:

Mr. Jason Goodwin, Director – Environmental, Health and Safety, Calpine Corporation:

jgoodwin@calpine.com

Ms. Cindy Zhang-Torres, Southwest District Office: cindy.zhang-torres@dep.state.fl.us

Mr. Thomas W. Davis, P.E., Environmental Consulting and Technology, Inc.: tdavis@ectinc.com

Ms. Katy Forney, U.S. EPA Region 4: forney.kathleen@epa.gov

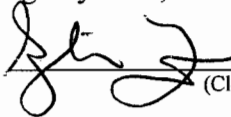
Ms. Ana Oquendo, EPA Region 4: oquendo.ana@epa.gov

Ms. Barbara Friday, DEP - BAR: barbara.friday@dep.state.fl.us (for posting with U.S. EPA, Region 4)

Ms. Victoria Gibson, DEP - BAR: victoria.gibson@dep.state.fl.us (for reading file)

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)

10/4/10
(Date)

SECTION 1. GENERAL INFORMATION

FACILITY AND PROJECT DESCRIPTION

Existing Facility

Calpine Operating Services Company, Inc. operates two existing power plants that are composed of the Auburndale Peaker Energy Center and the Osprey Energy Center. The Auburndale Peaker Energy Center is owned by Auburndale Peaker Energy Center, LLC, and the Osprey Energy Center is owned by Calpine Construction Finance Company, L.P. The plants consist of a combination of simple cycle and combined cycle combustion turbines. The nominal generating capacity of the complex is 660 megawatts (MW). The facility is located at 1651 West Derby Avenue, Auburndale, Florida, in Polk County.

006	Nominal 120 megawatt (MW) simple cycle combustion turbine-electrical generator set
007	Nominal 170 MW combined cycle combustion turbine-electrical generator set*
008	Nominal 170 MW combined cycle combustion turbine-electrical generator set*
009	Heat recovery steam generator (HRSG) equipped with 250 million British thermal units (MMBtu) per hour gas-fired duct burner system*
010	HRSG equipped with 250 MMBtu per hour gas-fired duct burner system*

*Emissions Units 007 – 010 comprise a nominal 540 MW combined cycle unit consisting of two combustion turbines, two HRSG with duct burner systems, and one shared nominal 200 MW steam-electrical generator set.

Proposed Project

This permit modification revises certain specific conditions of air construction permits 1050221-004-AC and PSD-FL-287 related to continuous emissions monitoring certification and data requirements at the plant complex. Details are provided in the project's Technical Evaluation and Preliminary Determination document.

REGULATORY CLASSIFICATION

Title III: The facility is not 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 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility is a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The facility operates units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

Power Plant Siting: The facility is subject to power plant site certification.

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 the Technical Evaluation and Preliminary Determination.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The Permitting Authority for this project is the Bureau of Air Regulation in the Division of Air Resource Management of the Department. The mailing address for the Bureau of Air Regulation is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Department's Southwest District Office. The mailing address and phone number of the Southwest District Office are: 13051 N. Telecom Parkway, Temple Terrace, Florida 33637, Telephone: 813/632-7600, Fax: 813/632-7665.
3. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
4. 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.]
5. Modifications: No emissions unit 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.]

SECTION 3. EMISSIONS UNITS SPECIFIC CONDITIONS

Units 006, 007, 008, 009 and 010

The specific conditions in this section apply to the following emissions units (EU):

EU No.	Brief Description
006	Nominal 120 megawatt (MW) simple cycle combustion turbine-electrical generator set
007	Nominal 170 MW combined cycle combustion turbine-electrical generator set
008	Nominal 170 MW combined cycle combustion turbine-electrical generator set
009	Heat recovery steam generator (HRSG) equipped with 250 million British thermal units (MMBtu) per hour gas-fired duct burner system
010	HRSG equipped with 250 MMBtu per hour gas-fired duct burner system

1. Other Permits: Except as listed below, all other conditions of existing permits remain in effect and unchanged.

This permit modification revises certain specific conditions of air construction permits 1050221-004-AC and PSD-FL-287. Note: Double underline indicates additions and ~~strikethrough~~ indicates deletions.

2. Specific Condition 31 of 1050221-004-AC is changed as follows:

31. Continuous Emissions Monitoring System:

... Compliance with the emissions limits for NO_x shall be based on a 24-hour block average starting at midnight of each operating day. The 24-hour block average shall be calculated from 24 valid hourly average emission rate values. A valid hourly emission rate shall be calculated for each hour in which at least two measurements are obtained at least 15-minutes apart. ...

3. Specific Condition 32 of 1050221-004-AC is changed as follows:

32. Certification:

... The NO_x and O₂ monitor shall be certified pursuant to 40 CFR Part 75 and shall be operated and maintained in accordance with the applicable requirements of 40 CFR Part 75 Subpart B and C. ... ~~The O₂ monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 3.~~

4. Specific Condition 33 of 1050221-004-AC is changed as follows:

33. NO_x/CO CEMS Data Requirements:

NO_x, CO and O₂ emissions data shall be recorded by the CEM system during episodes of startup, shutdown and malfunction. No valid monitoring data shall be excluded from the mass-based (TPY) CO and NO_x emissions limits. Monitoring data collected during startup, shutdown and malfunctions may be excluded in accordance with the following conditions when determining compliance with concentration-based (ppmvd) CO and NO_x emissions limits. NO_x and CO emissions data recorded during these episodes may be excluded from the 24-hour block average calculated to demonstrate compliance with the emission limits of this permit as provided in this paragraph. Periods of data excluded for startup and shutdown shall not exceed two hours (120 minutes) in any ~~block 24-hour period~~ operating day. Periods of data excluded for malfunctions shall not exceed two hours (120 minutes) in any ~~24-hour block period~~ operating day. All periods of data excluded for any startup, shutdown or malfunction episode shall be consecutive for each episode. Periods of data excluded for all startup, shutdown or malfunction episodes shall not exceed four hours (240 minutes) in any ~~24-hour block period~~ operating day. An operating day is defined as a day (midnight to midnight) that contains operation. The owner or operator shall minimize the duration of data excluded for startup, shutdown

SECTION 3. EMISSIONS UNITS SPECIFIC CONDITIONS

Units 006, 007, 008, 009 and 010

and malfunctions, to the extent practicable. Data recorded during startup, shutdown or malfunction events shall not be excluded if the startup, shutdown or malfunction episode was caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented.

5. Specific Condition 25 of PSD-FL-287 is changed as follows:

25. Excess Emissions:

... Excess emission occurrences shall in no case exceed 2 hours (120 minutes) in any ~~24-hour period~~ operating day permitted except during both "cold start-up" to, and shutdowns from, combined cycle operation. During cold start-up to combined cycle operation, up to four hours (240 minutes) of excess emissions are allowed. During shutdowns from combined cycle operation, up to three hours (180 minutes) of excess emissions are allowed. Cold startup is defined as start-up to combined cycle operation following ~~a complete shutdown lasting at least 48 hours~~ breaker open of the combustion turbine with no operation above 60% load in the interim for a minimum of 48-hours (2880 minutes). An operating day is defined as a day (midnight to midnight) that contains operation.

Livingston, Sylvia

From: Livingston, Sylvia
Sent: Monday, October 04, 2010 3:25 PM
To: 'jgoodwin@calpine.com'
Cc: Zhang-Torres; 'tdavis@ectinc.com'; 'forney.kathleen@epa.gov'; 'oquendo.ana@epa.gov'; Friday, Barbara; Gibson, Victoria; Cascio, Tom; Walker, Elizabeth (AIR)
Subject: Calpine Corporation - Auburndale Peaker Energy Center & Osprey Energy Center; 1050334-009-AC
Attachments: 1050334-009-AC_Signatures.pdf

Dear Sir/ Madam:

Attached is the official **Notice of Final Permit** 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 documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/1050334.009.AC.F_pdf.zip

Owner/Company Name: CALPINE CONSTRUCTION FINANCE COMPANY, LP

Facility Name: OSPREY ENERGY CENTER

Project Number: 1050334-009-AC

Permit Status: FINAL

Permit Activity: CONSTRUCTION

Facility County: POLK

Processor: Tom Cascio

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://www.dep.state.fl.us/air/emission/apds/default.asp>.

Project documents that 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 at (850)488-0114.

Sylvia Livingston
Bureau of Air Regulation
Division of Air Resource Management (DARM)
Department of Environmental Protection
850/921-9561
sylvia.livingston@dep.state.fl.us

Livingston, Sylvia

From: Jason Goodwin [Jason.Goodwin@calpine.com]
Sent: Monday, October 04, 2010 4:38 PM
To: Livingston, Sylvia
Subject: RE: Calpine Corporation - Auburndale Peaker Energy Center & Osprey Energy Center; 1050334-009-AC

Received.

Jason Goodwin
Calpine EHS | Southeast Region
713.570.4795 o | 713.252.8064 m
jason.goodwin@calpine.com
NYSE : CPN

From: Livingston, Sylvia [mailto:Sylvia.Livingston@dep.state.fl.us]
Sent: Monday, October 04, 2010 2:25 PM
To: Jason Goodwin
Cc: Zhang-Torres; tdavis@ectinc.com; forney.kathleen@epa.gov; oquendo.ana@epa.gov; Friday, Barbara; Gibson, Victoria; Cascio, Tom; Walker, Elizabeth (AIR)
Subject: Calpine Corporation - Auburndale Peaker Energy Center & Osprey Energy Center; 1050334-009-AC

Dear Sir/ Madam:

Attached is the official **Notice of Final Permit** 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 documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/1050334.009.AC.F_pdf.zip

Owner/Company Name: CALPINE CONSTRUCTION FINANCE COMPANY, LP
Facility Name: OSPREY ENERGY CENTER
Project Number: 1050334-009-AC
Permit Status: FINAL
Permit Activity: CONSTRUCTION
Facility County: POLK
Processor: Tom Cascio

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://www.dep.state.fl.us/air/emission/apds/default.asp>.

Project documents that 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

Livingston, Sylvia

From: Tom Davis [tdavis@ectinc.com]
Sent: Monday, October 04, 2010 3:42 PM
To: Livingston, Sylvia
Subject: RE: Calpine Corporation - Auburndale Peaker Energy Center & Osprey Energy Center; 1050334-009-AC

Dear Ms. Livingston,

I have received and can access the documents referenced in your email below.

Thanks.

From: Livingston, Sylvia [mailto:Sylvia.Livingston@dep.state.fl.us]
Sent: Monday, October 04, 2010 3:25 PM
To: jgoodwin@calpine.com
Cc: Zhang-Torres; tdavis@ectinc.com; forney.kathleen@epa.gov; oquendo.ana@epa.gov; Friday, Barbara; Gibson, Victoria; Cascio, Tom; Walker, Elizabeth (AIR)
Subject: Calpine Corporation - Auburndale Peaker Energy Center & Osprey Energy Center; 1050334-009-AC

Dear Sir/ Madam:

Attached is the official **Notice of Final Permit** 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 documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/1050334.009.AC.F_pdf.zip

Owner/Company Name: CALPINE CONSTRUCTION FINANCE COMPANY, LP
Facility Name: OSPREY ENERGY CENTER
Project Number: 1050334-009-AC
Permit Status: FINAL
Permit Activity: CONSTRUCTION
Facility County: POLK
Processor: Tom Cascio

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://www.dep.state.fl.us/air/emission/apds/default.asp>.

Project documents that 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 at (850)488-0114.

Florida Department of Environmental Protection

Memorandum

TO: Joseph Kahn, Division of Air Resource Management
THROUGH: Trina Vielhauer, Bureau of Air Regulation
Jon Holtom, Title V Section *JH*
FROM: Tom Cascio *LC*
DATE: October 1, 2010
SUBJECT: Air Construction Permit No. 1050334-009-AC
Calpine Corporation
Auburndale Peaker Energy Center and Osprey Energy Center
Final Air Construction Permit

The final permit for this project is attached for your approval and signature.

The attached Final Determination identifies issuance of the draft air construction permit, and summarizes the publication process. There were no comments received from the applicant, the public or EPA in response to the draft air construction permit.

I recommend your approval of the attached final permit for this project.

Attachments

PERMITTEE

Calpine Corporation
717 Texas Avenue, Suite 1000
Houston, Texas 77002

PERMITTING AUTHORITY

Florida Department of Environmental Protection (Department)
Division of Air Resource Management
Bureau of Air Regulation, Title V Section
2600 Blair Stone Road, MS #5505
Tallahassee, Florida 32399-2400

PROJECT

Air Permit No. 1050334-009-AC
Air Construction Permit
Auburndale Peaker Energy Center and Osprey Energy Center

This permit modification revises certain specific conditions of air construction permits 1050221-004-AC and PSD-FL-287 related to continuous emissions monitoring certification and data requirements at the plant complex.

NOTICE AND PUBLICATION

The Department distributed a draft air construction permit package on September 8, 2010. The applicant published the Public Notice in The Ledger on September 14, 2010. The Department received the proof of publication on September 20, 2010. No requests for administrative hearings or requests for extensions of time to file a petition for administrative hearing were received.

COMMENTS

No comments on the draft air construction permit were received from the public, the EPA Region 4 Office or the applicant.

CONCLUSION

The final action of the Department is to issue the air construction permit with no changes.