# Florida Department of Environmental Protection

TO:

Trina Vielhauer, Bureau of Air Regulation

THROUGH:

Jon Holtom, Title V Section

FROM:

Tom Cascio

DATE:

September 1, 2010

SUBJECT:

Air Construction Permit Modification No. 1050334-009-AC

Initial Draft/Proposed Permit No. 1050334-008-AV Auburndale Peaker Energy Center/Osprey Energy Center

Attached for your review are the following items:

- Written Notice of Intent to Issue Air Permits;
- Public Notice of Intent to Issue Air Permits;
- Technical Evaluation and Preliminary Determination;
- Draft Air Construction Permit Modification;
- Statement of Basis;
- Initial Draft/Proposed Title V Air Operation Permit; and,
- P.E. Certification.

This permitting action is the second part of the separation of the former Auburndale Energy Complex into two Title V facilities. The Statement of Basis provides a summary of the project and the rationale for issuance. The P.E. certification briefly summarizes the proposed project.

The application was received on April 23, 2010. A request for additional information (RAI) was sent on June 7, 2010. A response was received on June 29, 2010, which made the application complete. Day 90 is September 27, 2010. I recommend your approval of the attached initial draft/proposed Title V air operation permit and air construction permit modification.

Attachments

#### P.E. CERTIFICATION STATEMENT

#### **PERMITTEE**

Calpine Corporation 717 Texas Avenue, Suite 1000 Houston, Texas 77002 Permit No. 1050334-008-AV
Permit No. 1050334-009-AC
Facility ID No. 1050334
Auburndale Peaker Energy Center/
Osprey Energy Center
Initial Title V Air Operation Permit
Air Construction Permit Modification
Polk County, Florida

Registration Number

#### PROJECT DESCRIPTION

The main purpose of this project is to issue an initial Title V air operation permit as part of the process of separating the complex into two facilities following the legal transfer of portions of the facility to the Calpine Corporation. An air construction permit modification is also included to authorize revisions to air construction permits 1050221-004-AC and PSD-FL-287 related to continuous emissions monitoring and data requirements requested by the applicant.

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).

This review was conducted by Tom Cascio under my responsible supervision.

Florida Department of Environmental Protection

Division of Air Resource Management • Bureau of Air Regulation • Title V Section

2600 Blair Stone Road, MS #5505 • Tallahassee, Florida 32399-2400



## Florida Department of Environmental Protection

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

Jeff Kottkamp Lt. Governor

Michael W. Sole Secretary

Electronic Mail - Received Receipt Requested.

Mr. Jason Goodwin, Director – Environmental, Health and Safety Calpine Corporation 717 Texas Avenue, Suite 1000 Houston, Texas 77002

Re:

Initial Title V Air Operation Permit No. 1050334-008-AV Air Construction Permit Modification No. 1050334-009-AC Auburndale Peaker Energy Center/Osprey Energy Center

Dear Mr. Goodwin:

Enclosed is the draft/proposed permit package to issue an air construction permit modification and initial Title V air operation permit for the Auburndale Peaker Energy Center/Osprey Energy Center facility complex. The facility is located at 1651 West Derby Avenue, Auburndale, Florida, in Polk County. The permit package includes the following documents:

- The Technical Evaluation and Preliminary Determination, which establishes the basis for approving the requested changes made in the construction permit modification.
- The Statement of Basis, which summarizes the facility, the equipment, the primary rule applicability, and the changes included in this initial Title V permit.
- The draft construction permit modification and the draft/proposed initial Title V air operation permit, which includes the specific permit conditions that regulate the emissions units covered by the proposed project.
- The Written Notice of Intent to Issue Air Permits provides important information regarding: the Permitting Authority's intent to issue air permits for the proposed project; the requirements for publishing a Public Notice of the Permitting Authority's intent to issue air permits; the procedures for submitting comments on the draft/proposed permits; the process for filing a petition for an administrative hearing; and the availability of mediation.
- The Public Notice of Intent to Issue Air Permits 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. The Public Notice of Intent to Issue Title V Air Permits must be published as soon as possible and the original proof of publication affidavit must be provided to the Department within seven days of the date of publication.

If you have any questions, please contact the Project Engineer, Tom Cascio by telephone at (850) 921-9526 or by email at <a href="mailto:tom.cascio@dep.state.fl.us">tom.cascio@dep.state.fl.us</a>.

Sincerely,

Trina L. Vielhauer, Chief

Bureau of Air Regulation

Date

Enclosures TLV/jkh/tbc

In the Matter of an Application for Air Construction Permit Modification and Initial Title V Air Operation Permit by:

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

Responsible Official:

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

Permit No. 1050334-008-AV
Permit No. 1050334-009-AC
Facility ID No. 1050334
Auburndale Peaker Energy Center/Osprey
Energy Center
Initial Title V Air Operation Permit
Air Construction Permit Modification
Polk County, Florida

**Facility Location**: Calpine Corporation operates the existing Auburndale Peaker Energy Center/Osprey Energy Center, which is located in Polk County at 1651 West Derby Avenue, Auburndale, Florida.

**Project**: The main purpose of this project is to issue an initial Title V air operation permit to separate the complex into two facilities for permitting purposes. An air construction permit modification is included to authorize revisions to specific conditions of air construction permits 1050221-004-AC and PSD-FL-287 related to continuous emissions monitoring and data requirements. Specifically, the language concerning (1) valid hourly emission rates, (2) certification of oxygen monitors, (3) operating day definition, and (4) cold start up definition was adjusted. The initial Title V air operation permit incorporates these changes. Details of the project are provided in the application and the enclosed Statement of Basis.

**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.

Applications for Title V air operation permits for facilities that contain Acid Rain units are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, 62-213 and 62-214 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and a Title V air operation permit is required to operate the facility. 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 the address indicated above for the Permitting Authority. The complete project file includes the Technical Evaluation And Preliminary Determination, the draft/proposed permits, the Statement of Basis, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the draft permits by visiting the following website: <a href="http://www.dep.state.fl.us/air/emission/apds/default.asp">http://www.dep.state.fl.us/air/emission/apds/default.asp</a> and entering the permit number shown above. 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 Permits: The Permitting Authority gives notice of its intent to issue an air construction permit modification 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 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 air construction permit modification 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.

The Permitting Authority gives notice of its intent to issue an initial Title V air operation permit to the applicant for the project described above. The applicant has provided reasonable assurance that continued operation of the existing 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, 62-213, 62-214, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a final initial permit in accordance with the conditions of the draft/proposed initial permit unless a response received in accordance with the following procedures 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 Permits (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 the above address or phone number. 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 draft air construction permit modification for a period of 14 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 14-day period. If written comments received result in a significant change to the draft air construction permit modification, the Permitting Authority shall revise the draft air construction permit modification and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

The Permitting Authority will accept written comments concerning the draft/proposed initial Title V air operation permit for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the close of business (5:00 p.m.), on or before the end of this 30-day period by the Permitting Authority at the above address. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location in the Florida Administrative Weekly (FAW). 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 written comments or comments received at a public meeting result in a significant change to the draft/proposed permit, the Permitting Authority shall issue a revised draft/proposed initial permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection. For additional information, contact the Permitting Authority at the above address or phone number.

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 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. If there are none, the petitioner contends (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 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.

**EPA Review**: EPA has agreed to treat the draft/proposed initial Title V air operation permit as a proposed initial Title V air operation permit and to perform its 45-day review provided by the law and regulations concurrently with the public comment period. Although EPA's 45-day review period will be performed concurrently with the public comment period, the deadline for submitting a citizen petition to object to the EPA Administrator will be determined as if EPA's 45-day review period is performed after the public comment period has ended. The final Title V air operation permit will be issued after the conclusion of the 45-day EPA review period so long as no adverse comments are received that result in a different decision or significant change of terms or conditions. The status regarding EPA's 45-day review of this project and the deadline for submitting a citizen petition can be found at the following website address: <a href="http://www.epa.gov/region4/air/permits/Florida.htm">http://www.epa.gov/region4/air/permits/Florida.htm</a>.

Objections: Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 days of the expiration of the Administrator's 45-day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to the issuance of any Title V air operation permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30-day public comment period provided in the Public Notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for

such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460. For more information regarding EPA review and objections, visit EPA's Region 4 web site at <a href="http://www.epa.gov/region4/air/permits/Florida.htm">http://www.epa.gov/region4/air/permits/Florida.htm</a>.

Executed in Tallahassee, Florida.

Trina L. Vielhauer, Chief

Zieca Lluchaus

Bureau of Air Regulation

#### CERTIFICATE OF SERVICE

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

acknowledged.

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

## PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION AND INITIAL TITLE V AIR OPERATION PERMIT

Florida Department of Environmental Protection
Division of Air Resource Management, Bureau of Air Regulation
Draft Air Construction Permit Modification No. 1050334-009-AC
Draft/Proposed Initial Air Operation Permit No. 1050334-008-AV
Calpine Corporation, Auburndale Peaker Energy Center/Osprey Energy Center
Polk County, Florida

**Applicant**: The applicant for this project is the Calpine Corporation. The applicant's responsible official and mailing address are: Mr. Jason Goodwin, Director – Environmental, Health and Safety, Calpine Corporation, 717 Texas Avenue, Suite 1000, Houston, Texas 77002.

**Facility Location**: The applicant operates the existing Auburndale Peaker Energy Center/Osprey Energy Center, which is located in Polk County at 1651 West Derby Avenue, Auburndale, Florida.

**Project**: On April 23, 2010, the applicant submitted an application for an initial Title V air operation permit reflecting the separation of the complex into two different facilities for permitting purposes based on the sale of portions of the facility to the Calpine Corporation. On June 29, 2010, in response to a Department request for additional information letter, the applicant revised the initial application to include modifications to previously issued air construction permits 1050221-004-AC and PSD-FL-287 related to continuous emissions monitoring and data requirements. Specifically, the language concerning (1) valid hourly emission rates, (2) certification of oxygen monitors, (3) operating day definition, and (4) cold start up definition was adjusted.

**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.

Applications for Title V air operation permits for facilities that contain Acid Rain units are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, 62-213 and 62-214 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and a Title V air operation permit is required to operate the facility. 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 the address indicated above for the Permitting Authority. The complete project file includes the draft air construction permit modification, the draft/proposed initial air operation permit, the Statement of Basis, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the draft air construction permit modification and draft/proposed initial air operation permit by visiting the following website: <a href="http://www.dep.state.fl.us/air/emission/apds/default.asp">http://www.dep.state.fl.us/air/emission/apds/default.asp</a> and entering the permit numbers shown above. 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 Permits: The Permitting Authority gives notice of its intent to issue an air construction permit modification 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 draft air construction permit modification unless a timely petition for an administrative hearing is filed under Sections

## PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION AND INITIAL TITLE V AIR OPERATION PERMIT

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.

The Permitting Authority gives notice of its intent to issue an initial Title V air operation permit to the applicant for the project described above. The applicant has provided reasonable assurance that continued operation of the existing 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, 62-213, 62-214, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a final permit in accordance with the conditions of the draft/proposed initial permit unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the draft air construction permit modification for a period of 14 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 14-day period. If written comments received result in a significant change to the draft air construction permit modification, the Permitting Authority shall revise the draft air construction permit modification and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

The Permitting Authority will accept written comments concerning the draft/proposed initial Title V air operation permit for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the close of business (5:00 p.m.), on or before the end of this 30-day period by the Permitting Authority at the above address. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location in the Florida Administrative Weekly (FAW). 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 written comments or comments received at a public meeting result in a significant change to the draft/proposed initial permit, the Permitting Authority shall issue a revised draft/proposed initial permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection. For additional information, contact the Permitting Authority at the above address or phone number.

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 14 days of publication of the 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 rights will

## PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION AND INITIAL TITLE V AIR OPERATION PERMIT

be affected by the agency determination; (c) A statement of when and how the petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (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 for this proceeding.

EPA Review: EPA has agreed to treat the draft/proposed initial Title V air operation permit as a proposed initial Title V air operation permit and to perform its 45-day review provided by the law and regulations concurrently with the public comment period. Although EPA's 45-day review period will be performed concurrently with the public comment period, the deadline for submitting a citizen petition to object to the EPA Administrator will be determined as if EPA's 45-day review period is performed after the public comment period has ended. The final initial Title V air operation permit will be issued after the conclusion of the 45-day EPA review period so long as no adverse comments are received that results in a different decision or significant change of terms or conditions. The status regarding EPA's 45—day review of this project and the deadline for submitting a citizen petition can be found at the following website address: <a href="http://www.epa.gov/region4/air/permits/Florida.htm">http://www.epa.gov/region4/air/permits/Florida.htm</a>.

Objections: Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 days of the expiration of the Administrator's 45-day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to the issuance of any Title V air operation permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30-day public comment period provided in the Public Notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460. For more information regarding EPA review and objections, visit EPA's Region 4 web site at http://www.epa.gov/region4/air/permits/Florida.htm.

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Auburndale Peaker Energy Center/Osprey Energy Center
Air Construction Permit Modification
Polk County

DEP File No. 1050334-009-AC



Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
Title V Section

September 1, 2010

#### TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

#### 1. GENERAL PROJECT INFORMATION

#### **Applicant Name and Address**

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

Authorized Representative:

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

#### **Processing Schedule**

June 29, 2010: Air construction permit modification application was received and deemed complete.

#### **Facility Description and Location**

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 facility is located at 1651 West Derby Avenue, Auburndale, Florida, in Polk County.

#### **Major Regulatory Categories**

<u>Title III</u>: 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.

<u>Title V</u>: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

<u>PSD</u>: 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.

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

<u>Power Plant Siting</u>: The facility is subject to power plant site certification.

#### **Proposed Project**

#### Applicable Regulations.

This permit modification revises specific conditions of air construction permits 1050221-004-AC and PSD-FL-287 related to *continuous emissions monitoring and data requirements* as described in the concluding section below. Primarily, the language concerning (1) valid hourly emission rates, (2) certification of oxygen monitors, (3) operating day definition, and (4) cold start up definition was adjusted.

#### 2. REGULATIONS THAT APPLY TO THE PROJECT

#### 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. These include: 62-4 (Permitting Requirements); 62-204 (Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference); 62-210 (Permits

#### TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms); 62-212 (Preconstruction Review, PSD Review and BACT); 62-296 (Emission Limiting Standards); and 62-297 (Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures).

#### 3. PSD APPLICABILITY FOR PROJECT AND CONCLUSION

This permit modification revises specific conditions of air construction permits 1050221-004-AC and PSD-FL-287 related to *continuous emissions monitoring and data requirements*. Specifically, the language concerning (1) valid hourly emission rates, (2) certification of oxygen monitors, (3) operating day definition, and (4) cold start up definition was adjusted. Clarifications were also made to definitions for two, three and four hourly time spans in terms of minutes. Details of the changes follow below. Note: <u>Double underline</u> indicates additions and strikethrough indicates deletions.

#### Requested Change 1.

• The applicant requested the following change to Specific Condition 31. of 1050221-004-AC:

#### 31. Continuous Emissions Monitoring System:

... Compliance with the emissions limits for NO<sub>X</sub> 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. ...

• Department response: This change is acceptable because it is consistent with New Source Performance Standards (NSPS) Subpart A.

#### Requested Change 2.

• The applicant requested the following changes to Specific Condition 32. of 1050221-004-AC:

#### 32. Certification:

... The  $NO_X$  and  $O_2$  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  $O_2$  monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 3.

 Department response: This change is acceptable since the O<sub>2</sub> analyzer is subject to the Acid Rain/CAIR rules and subsequently to 40 CFR Part 75.

#### Requested Change 3.

• The applicant requested the following changes to Specific Condition 33. of 1050221-004-AC:

#### 33. NO<sub>x</sub>/CO CEMS Data Requirements:

NO<sub>X</sub>, CO and O<sub>2</sub> 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<sub>X</sub> 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<sub>X</sub> emissions limits. NO<sub>X</sub> 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

#### TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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 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.

• Department response: These changes are acceptable since startup, shutdown and malfunction exclusions apply daily, and not on a *rolling* 24-hour period. In addition, these exclusions can be treated on a minute basis.

#### Requested Change 4.

• The applicant requested the following change to Specific Condition 25. of PSD-FL-287:

#### 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.

Department response: These changes are acceptable since the exclusions apply daily and the
data can be treated on a minute basis. The applicant reported that the more complete definition of
cold shutdown described above was discussed with Department officials earlier and found
acceptable.

This project has no affect on actual or potential pollutant emissions levels from the Auburndale Peaking Energy Center/Osprey Energy Center since the changes are clarifications to the original air construction permits. Based on this determination, the project constitutes a non-major modification with respect to the Department's rules and requires a construction permit modification to implement.

#### (DRAFT)

#### 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.

(Draft)	
Joseph Kahn, Director	(Date)
Division of Air Resource Management	` ,

#### **FACILITY AND PROJECT DESCRIPTION**

#### **Existing Facility**

The Calpine Corporation is the owner of the two existing power plants that comprise the Auburndale Peaker Energy Center and the Osprey Energy Center complex. 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	010 HRSG equipped with 250 MMBtu per hour gas-fired duct burner system*	

<sup>\*</sup>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.

<u>Title V</u>: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

<u>PSD</u>: 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.

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

<u>Power Plant Siting:</u> 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.

- 1. <u>Permitting Authority</u>: 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. <u>Compliance Authority</u>: 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. <u>Modifications</u>: 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.]

#### 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	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: <u>Double underline</u> indicates additions and <u>strikethrough</u> 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  $O_2$  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  $O_2$ -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<sub>x</sub>/CO CEMS Data Requirements:

NO<sub>x</sub>, CO and O<sub>2</sub> 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 NOx 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 NOx emissions limits. NO<sub>x</sub> 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 all startup, shutdown or malfunction episodes 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

#### 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.

#### **Project Information**

Initial Title V Air Operation Permit No. 1050334-008-AV Auburndale Peaker Energy Center/Osprey Energy Center Facility ID No. 1050334

The plants are located at 1651 West Derby Avenue, Auburndale, Florida. The plant complex is owned and operated by the Calpine Corporation. 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).

#### **Facility Description**

The Auburndale Peaker Energy Center/Osprey Energy Center consists of the following emissions units:

EU No.	Brief Description		
Regulatea	Regulated Emissions Units		
Auburndale Peaker Energy Center			
006	Nominal 120 megawatt (MW) simple cycle combustion turbine-electrical generator set		
Osprey Energy Center			
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	010 HRSG equipped with 250 MMBtu per hour gas-fired duct burner system		
Unregulated Emissions Units and Activities			
011	011 Cooling tower		

The facility also operates other miscellaneous unregulated and insignificant emissions units and activities.

#### **Regulatory Classifications**

The facility is subject to the following primary regulatory classifications and applicable state regulations of the Florida Administrative Code (F.A.C.) as well as the federal New Source Performance Standards (NSPS) in the Code of Federal Regulations (CFR).

- The facility is a Title V major source in accordance with Chapter 62-213, F.A.C.
- The facility is a major stationary source pursuant to Rule 62-212.400, F.A.C., for the Prevention of Significant Deterioration (PSD).
- The facility operates units subject to Phase II of the federal Acid Rain Program.
- The facility is not a major source of hazardous air pollutants.
- The simple and combined cycle combustion turbines are regulated under the NSPS Subpart A (General Provisions) and 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines) in 40 CFR 60. The HRSG with duct burners are regulated by Subpart Da (Standards of Performance for Electric Utility Steam Generating Units).
- The facility is subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

- The facility is subject to power plant site certification.
- Because continuous emissions monitoring system (CEMS) data are used to demonstrate compliance with the
  nitrogen oxides (NO<sub>X</sub>) limits, compliance assurance monitoring (CAM) does not apply to the simple cycle
  turbine.
- Although selective catalytic reduction (SCR) systems are installed on the combined cycle units, CAM does not apply because compliance with the NO<sub>X</sub> emission standards is demonstrated by CEMS.

#### **Project Review**

#### Purpose

On April 23, 2010, the applicant submitted an application for an initial Title V air operation permit reflecting the separation of the complex into two different facilities based on the sale of portions of the facility to the Calpine Corporation. This permit retains the references to the Auburndale Peaking Energy Center (one simple cycle combustion turbine-electrical generator set) and the Osprey Energy Center (two combined cycle combustion turbine-electrical generator sets) from the current "combined" Title V permit. On June 29, 2010, in response to a Department request for additional information letter, the applicant revised the initial application to include modifications to previously issued air construction permits 1050221-004-AC and PSD-FL-287 related to continuous emissions monitoring and data requirements at the facility. Specifically, the language concerning (1) valid hourly emission rates, (2) certification of oxygen monitors, (3) operating day definition, and (4) cold start up definition was adjusted.

Detailed changes to specific conditions of the existing Title V permit are noted below – strikethrough indicates deletions of text and <u>double underline</u> indicated additions of text.

- **B.12.** A.13. CO,  $NO_X$  and  $O_2$  CEMS. The owner or operator shall calibrate, maintain, and operate a CEMS in the exhaust stack of this emissions unit to measure and record the emissions of  $NO_X$  and CO from the emissions units, and the oxygen  $(O_2)$  content of the flue gas at the location where  $NO_X$  and CO are monitored, in a manner sufficient to demonstrate compliance with the emission limits of this permit. The CEMS shall be used to demonstrate compliance with the emission limits for  $NO_X$  and CO within this permit.
  - a. The  $NO_X$  and  $\underline{O}_2$  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, Subparts B and C. Record keeping and reporting shall be conducted pursuant to 40 CFR Part 75, Subparts F and G. Annual Relative Accuracy Test Audit (RATA) tests required for the  $NO_X$  monitor shall be performed using EPA Method 20 or 7E in Appendix A of 40 CFR 60. The RATA tests required for the oxygen monitor shall be performed using EPA Method 3B, of Appendix A of 40 CFR 60. The span for the oxygen monitor shall not be greater than 21%. The permittee shall conduct an annual the RATA tests at 100% output in accordance with the applicable CEMS requirements.
  - b. The CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4. The O<sub>2</sub>-monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 3. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of section 7 shall be made each calendar quarter, and reported semi-annually to the Compliance Authority. The RATA tests required for the CO monitor shall be performed using EPA Method 10, of Appendix A of 40 CFR 60. The Method 10 analysis shall be based on a continuous sampling train, and the ascarite trap may be omitted or the interference trap of section 10.1 may be used in lieu of the silica gel and ascarite traps. The span for the CO monitor shall not be greater than 100 ppmvd corrected to 15% oxygen. The RATA tests required for the oxygen monitor shall be performed using EPA Method 3B, of Appendix A of 40 CFR 60. The span for the oxygen monitor shall not be greater than 21%.
  - c. For purposes of determining compliance with the NO<sub>x</sub> emission limits based on a 24-hour block average,

missing data shall not be substituted pursuant to 40 CFR 75. Instead the block average shall be determined using the remaining hourly data in the 24-hour block. However, the permittee's record keeping for the EU-006 NO<sub>X</sub> emissions caps (tons/year) shall be in full agreement with data submitted for inclusion on EPA's Acid Rain website which includes all documented exclusions reported to the Department in a quarterly report. The permittee may exclude start up, shutdown, and Part 75 missing data from the ppmvd calculations. However, this data will need to be recorded for the tons/year calculations for netting purposes and as required by the Acid Rain website.

- The CO, NO<sub>x</sub> and O<sub>2</sub> data shall be recorded by the CEMS during episodes of startup, shutdown and malfunction. No valid monitoring data shall be excluded from the mass-based (tons/year) CO and NO<sub>x</sub> 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<sub>x</sub> emissions limits. CO and NO<sub>x</sub> 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 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.
- The 24-hour block averages are calculated as follows: starting at midnight of each operating day, a 24hour block average shall be calculated from 24 valid hourly average emission rate values. Each hourly value shall be computed using at least one data point in each fifteen-minute quadrant of an hour, where the unit combusted fuel during that quadrant of an hour. Notwithstanding this requirement, an hourly value shall be computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour). A valid hourly emission rate shall be calculated for each hour in which at least two measurements are obtained at least 15 minutes apart. The owner or operator shall use all valid measurements or data points collected during an hour to calculate the hourly averages. All data points collected during an hour shall be, to the extent practicable, evenly spaced over the hour. If the CEMS measures concentration on a wet basis, the CEM system shall include provisions to determine the moisture content of the exhaust gas and an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Alternatively, the owner or operator may develop through manual stack test measurements a curve of moisture contents in the exhaust gas versus load for each allowable fuel, and use these typical values in an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Final results of the CEMS shall be expressed as ppmvd corrected to 15% oxygen. Monitoring data shall be excluded from the 24-hour block average for the following periods: startup, shutdown, or malfunction as defined in Rules 62-210.200 and 62-210.700, F.A.C.; when fuel is not fired in the unit; CEMS quality assurance checks; or when the CEMS is out of control.
- f. For the annual (tons/year) emissions limits of CO and NO<sub>X</sub>, measurements shall be in pounds (converted to tons) and be based on a 12-month rolling total starting at the first day of each calendar month. Each monthly total shall be calculated by adding the pounds per day for each valid operating day (all fuels) within the calendar month. This monthly total shall be combined with the emissions from the previous valid 11 calendar months and shall comprise a 12-month rolling total.

- g. Subject to EPA approval, the following alternate monitoring may be used to demonstrate compliance. When requested by the Department, the CEMS emission rates for  $NO_X$  on this unit shall be corrected to ISO conditions to demonstrate compliance with the  $NO_X$  standard established in 40 CFR 60.332. Data collected from the  $NO_X$  CEMS shall be used to report excess emissions in accordance with 40 CFR 60.334(c)(1) of NSPS, Subpart GG.
- h. CEMS Data Exclusion Combustor Tuning. CEMS data collected during initial or other major combustor tuning sessions shall be excluded from the CEMS compliance demonstration for short term emission standards provided the tuning session is performed in accordance with the manufacturer's specifications. All valid emissions data shall be used to demonstrate compliance with annual emissions caps. A "major tuning session" would occur after completion of initial construction, a combustor change-out, a major repair or maintenance to a combustor, or other similar circumstances. Prior to performing any major tuning session, the permittee shall provide the Department's Southwest District Compliance Authority with advance notice that details the activity and proposed tuning schedule. The notice shall be by telephone, facsimile transmittal, or electronic mail. [Rules 62-4.070(3), 62-212.400(PSD), F.A.C., 62-210.700(5) F.A.C. and PSD-FL-185A]
- i. Note that the twelve month rolling emissions totals required to be reported for CO and NO<sub>X</sub> do not exclude any data.

[Rules 62-4.070(3) and 62-212.400(PSD), F.A.C.; 1050221-004-AC; Subparts B, C, F and G in 40 CFR Part 75; Appendix A, B and F of 40 CFR 60; Subparts A and GG in 40 CFR 60; <u>applicant request dated April 23, 2010</u>; and 1050334-009-AC.]

- C.12. B.13. Excess Emissions. Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two hours (120 minutes) in any 24-hour period operating day except during both "cold start-up" to, and shutdowns from, combined cycle plant 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 start-up is defined as a startup 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. Operation below 30% output per turbine shall otherwise be limited to 2 hours in any 24-hour period. [Rule 62-210.700(3), F.A.C. and PSD-FL-287; applicant request dated April 23, 2010; and 1050334-009-AC.]
- C.14. B.15. CO,  $NO_X$  and  $O_2$  CEMS. To demonstrate continuous compliance with the applicable standards, the permittee shall install, calibrate, maintain, and operate CEMS in each stack to measure and record CO and  $NO_X$  emissions and oxygen concentration from these units.
  - a.  $NO_X$  and  $O_2$  CEMS: The NO<sub>X</sub> and  $O_2$  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, Subparts B and C. Record keeping and reporting shall be conducted pursuant to 40 CFR Part 75, Subparts F and G. Annual RATA tests required for the NO<sub>X</sub> monitor shall be performed using EPA Method 20 or 7E in Appendix A of 40 CFR 60. The RATA tests required for the oxygen monitor shall be performed using EPA Method 3B in Appendix A of 40 CFR 60. The span for the oxygen monitor shall not be greater than 21%. The span for the NO<sub>X</sub> monitor shall be based on the emissions standards. The use of the missing data substitution methodology provided in Subpart D of 40 CFR 75 is not required for identifying excess NO<sub>X</sub> emissions. Instead, periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance report required in 40 CFR 60.7(c). As allowed for in Specific Condition B.13.,

CEMS data collected during the following periods may be excluded from the 24-hour block average: limited startup data; limited shutdown data; and missing data as defined by 40 CFR 75. Upon request from DEP, the CEMS emission rates shall be corrected to ISO conditions to demonstrate compliance with the applicable standards listed within this permit and established in 40 CFR 60.332.

- b. CO and Oxygen CEMS: The permittee shall install, operate and maintain a CO CEMS certified pursuant to Performance Specification 4 in Appendix B of 40 CFR 60. The oxygen monitor shall be certified pursuant to Performance Specification 3 in Appendix B of 40 CFR 60. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of section 7 shall be made each calendar quarter, and reported semi-annually to the Compliance Authority. The RATA tests required for the CO monitor shall be performed using EPA Method 10 in Appendix A of 40 CFR 60. The Method 10 analysis shall be based on a continuous sampling train, and the ascarite trap may be omitted or the interference trap of section 10.1 may be used in lieu of the silica gel and ascarite traps. The span for the CO monitor shall be based on the emissions standards. The RATA tests required for the oxygen monitor shall be performed using EPA Method 3B in Appendix A of 40 CFR 60. The span for the oxygen monitor shall not be greater than 21%.
- c. Continuous Compliance: Continuous compliance with the applicable CO and NO<sub>X</sub> emission limits shall be demonstrated by CEMS. Based on the CEMS data, a separate compliance determination is conducted at the end of each period and a new average emission rate is calculated from the arithmetic average of all valid hourly emission rates from the previous period. Valid hourly emission rates shall not include periods of start up or shutdown unless prohibited by 62-210.700, F.A.C. A valid hourly emission rate shall be calculated for each hour in which at least two measurements are obtained at least 15 minutes apart. Excess emissions periods shall be reported as required in Specific Conditions **B.13.** and **B.27.**
- d. CEMS Data Exclusion Combustor Tuning. CEMS data collected during initial or other major combustor tuning sessions shall be excluded from the CEMS compliance demonstration for short term emission standards provided the tuning session is performed in accordance with the manufacturer's specifications. All valid emissions data shall be used to demonstrate compliance with annual emissions caps. A "major tuning session" would occur after completion of initial construction, a combustor change-out, a major repair or maintenance to a combustor, or other similar circumstances. Prior to performing any major tuning session, the permittee shall provide the Department's Southwest District Compliance Authority with advance notice that details the activity and proposed tuning schedule. The notice shall be by telephone, facsimile transmittal, or electronic mail.

[Rules 62-4.070, 62-212.400(PSD), F.A.C., 62-210.700, F.A.C., PSD-FL-185A, PSD-FL-287; <u>applicant request</u> <u>dated April 23, 2010; 1050334-009-AC</u> and 40 CFR 75]

#### Conclusion

Based on reasonable assurances of compliance provided by the applicant and the Responsible Official's certification of compliance, the Department will issue the initial Title V air operation permit under the provisions of Chapter 403, Florida Statutes (F.S.) and F.A.C. Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296 and 62-297. The permit authorizes operation of the facility shown on the application and approved drawings, plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this initial permit.

## Calpine Corporation

## Auburndale Peaker Energy Center/ Osprey Energy Center

Facility ID No. 1050334 Polk County

### Initial Title V Air Operation Permit

Permit No. 1050334-008-AV



#### **Permitting Authority:**

State of Florida
Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
Title V Section
2600 Blair Stone Road
Mail Station #5505

Tallahassee, Florida 32399-2400

Telephone: (850) 488-0114 Fax: (850) 921-9533

#### **Compliance Authority:**

Southwest District Office 13051 N. Telecom Parkway Temple Terrace, Florida 33637

Telephone: (813) 632-7600 Fax: (813) 632-7665

## Initial Title V Air Operation Permit Permit No. 1050334-008-AV

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Ref	Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996). Table H, Permit History.

#### DRAFT/PROPOSED PERMIT

**PERMITTEE:** 

Calpine Corporation 717 Texas Avenue, Suite 1000 Houston, Texas 77002 Permit No. 1050334-008-AV Auburndale Peaker Energy Center/ Osprey Energy Center Facility ID No. 1050334 Initial Title V Air Operation Permit

This is the initial Title V Air Operation Permit for the above referenced facility. The existing Auburndale Peaker Energy Center/ Osprey Energy Center is located at 1651 West Derby Avenue, Auburndale, Florida, in Polk County. The reference Universal Transverse Mercator (UTM) coordinates are: Zone 17, 420.8 km East and 3103.3 km North. Latitude is: 28° 03' 06" North; and, Longitude is: 81° 48' 21" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213 and 62-214. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

Effective Date: January 1, 2011

Renewal Application Due Date: May 20, 2015

Expiration Date: December 31, 2015

(Draft/Proposed)

Joseph Kahn, Director Division of Air Resource Management

JK/tlv/jkh/tbc

#### Subsection A. Facility Description.

The Calpine Corporation is the owner of the two existing power plants that comprise the Auburndale Peaker Energy Center and the Osprey Energy Center complex. 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 not a major source of hazardous air pollutants (HAP).
- The facility operates units subject to Phase II of the federal Acid Rain Program.
- The facility is a Title V major source in accordance with Chapter 62-213, F.A.C.
- The facility is a major stationary source pursuant to Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD).
- The facility is subject to power plant site certification.

The facility also operates other miscellaneous unregulated and insignificant emissions units and activities.

#### Subsection B. Summary of Emissions Units.

EU No.	Brief Description	
Regulatea	Emissions Units	
Auburnda	le Peaker Energy Center	
006	Nominal 120 megawatt (MW) simple cycle combustion turbine-electrical generator set	
Osprey E	nergy Center	
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	010 HRSG equipped with 250 MMBtu per hour gas-fired duct burner system*	
Unregulai	ted Emissions Units and Activities	
011	011 Cooling tower	

<sup>\*</sup>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.

#### Subsection C. Applicable Regulations.

Based on the initial Title V air operation permit application received on April 23, 2010, this facility is not a major source of hazardous air pollutants (HAP). Because this facility operates stationary reciprocating internal combustion engines, it is subject to regulation under 40 CFR 63, Subpart ZZZZ - National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines. However, since the engines being operated meet the Subpart ZZZZ definition of "existing units", there are no unit specific applicable requirements that must be met pursuant to this rule at this time. The existing facility is a PSD major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table.

Regulation	EU No(s).
Federal Rule Citations	
40 CFR 60, Subpart A, NSPS General Provisions	006, 007, 008, 009, 010

#### SECTION I. FACILITY INFORMATION.

40 CFR 60, Subpart Da (Standards of Performance for Electric Utility Steam Generating Units)  009		
40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines)	for Stationary Gas 006, 007, 008	
40 CFR 75 Acid Rain Monitoring Provisions		
State Rule Citations		
Rule 62-4, Florida Administrative Code (F.A.C.) (Permitting Requirements)	006, 007, 008, 009, 010	
Rule 62-204, F.A.C. (Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference)		
Rule 62-210, F.A.C. (Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms)		
Rule 62-212, F.A.C. (Preconstruction Review, PSD Review and Best Available Control Technology (BACT))		
Rule 62-213, F.A.C. (Title V Air Operation Permits for Major Sources of Air Pollution)		
Rule 62-214, F.A.C. (Requirements For Sources Subject To The Federal Acid Rain Program)	006, 007, 008	
Rule 62-296.470, F.A.C. (Clean Air Interstate Rule) (CAIR)		
Rule 62-296, F.A.C. (Emission Limiting Standards)		
Rule 62-297, F.A.C. (Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures)	006, 007, 008, 009, 010	

#### The following conditions apply facility-wide to all emission units and activities:

**FW1.** Appendices. The permittee shall comply with all documents identified in Section VI, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

#### **Emissions and Controls**

- FW2. Not federally Enforceable. Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]
- FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]

{Permitting Note: Nothing is deemed necessary and ordered at this time.}

- **FW4.** 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% opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b), F.A.C.]
- FW5. <u>Unconfined Particulate Matter</u>. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter (PM) at this facility include:
  - a. Paving and maintenance of roads, parking areas and yards.
  - b. Chemical (dust suppressants) or water application to unpaved roads, unpaved yard areas and open stock piles.
  - Removal of PM from roads and other paved areas to prevent re-entrainment and from buildings or work areas to prevent airborne PM.
  - d. Landscaping or planting of vegetation.
  - e. Use of hoods, fans, filters, and similar equipment to contain, capture, and/or vent PM.
  - f. Confining abrasive blasting where possible.
  - g. Enclosure or covering of conveyor systems.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in the initial Title V air operation permit application received April 23, 2010.]

#### **Annual Reports and Fees**

See Appendix RR, Facility-wide Reporting Requirements for additional details.

- **FW6.** Annual Operating Report. The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1<sup>st</sup> of each year. [Rule 62-210.370(3), F.A.C.]
- FW7. Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due (postmarked) by March 1<sup>st</sup> of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for

#### SECTION II. FACILITY-WIDE CONDITIONS.

- download by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: <a href="http://www.dep.state.fl.us/air/emission/tvfee.htm">http://www.dep.state.fl.us/air/emission/tvfee.htm</a>. [Rule 62-213.205, F.A.C.]
- FW8. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V permit was effective. [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]
- **FW9.** Prevention of Accidental Releases (Section 112(r) of CAA). If, and when, the facility becomes subject to 112(r), the permittee shall:
  - a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
  - b. Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68]

#### Subsection A. Emissions Unit 006

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description	
Auburndale Peaker Energy Center		
006	This emissions unit is a nominal 120 MW simple cycle combustion turbine-electrical generator set consisting of a Siemens Westinghouse Model No. 501D5A unit. The primary fuel is natural gas and	

Stack height is 50 feet, stack exit diameter is 22.0 feet, volumetric flow rate is 1,887,100 actual cubic feet per second (acfm) and exit temperature is 1,000 degrees Fahrenheit. Commercial startup date for the unit was May 8, 2002. There are continuous emissions monitor systems (CEMS) installed for the measurement of nitrogen oxides and carbon monoxide. The combustion turbine is subject to: Phase II of the federal Acid Rain Program; the New Source Performance Standards (NSPS) in Subpart A (General Provisions) of 40 CFR 60; and NSPS Subpart GG (Standards of Performance for Stationary Gas Turbines) in 40 CFR 60. Because CEMS data are used to demonstrate compliance with the NO<sub>X</sub> limits, compliance assurance monitoring (CAM) does not apply to this emissions unit.

#### Essential Potential to Emit (PTE) Parameters

A.1. <u>Permitted Capacity</u>. The maximum allowable heat input rate is as follows. Heat input rates will vary depending upon ambient conditions and the combustion turbine characteristics.

<u>Unit No.</u>	MMBtu/hr Heat Input	Fuel Type
006	1,776	Natural gas, based on the following: 100% base load, a higher heating value (HHV) and a compressor inlet air temperature of 32° F.
000	1,726	Distillate fuel oil, based on the following: 100% base load a higher heating value (HHV) and a compressor inlet air temperature of 32° F.

[Design; Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), F.A.C.; and, Permit No. 1050221-004-AC]

- A.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]
- **A.3.** Methods of Operation.
  - a. Fuels. The fuels that are allowed to be burned in this unit/these units are:
    - (1) The combustion turbine shall fire only natural gas with maximum sulfur content of 2 grains of sulfur per 100 dry standard cubic feet of gas (monthly average) or distillate oil with a maximum sulfur content of 0.05% by weight. [Rules 62-210.200(PTE), F.A.C. and 1050221-004-AC]
    - (2) The combustion turbine shall fire no more than 2,227,400 MMBtu of natural gas during any consecutive 12-month period (equivalent to approximately 1,400 hours/year at base load). The total hours of operation of the combustion turbine while firing distillate fuel oil shall not exceed 400 hours during any consecutive 12-month period. The permittee shall install, calibrate, operate and maintain a monitoring system to measure and accumulate the following for each fuel fired: quantity, heat input rate and hours of operation. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; 1050221-004-AC; and 1050221-006-AC]
  - b. Other.

#### Subsection A. Emissions Unit 006

- (1) The combustion turbine shall operate only in simple cycle mode not to exceed the permitted hours of operation, nor the permitted short and long-term emission limits allowed by this permit. This restriction is based on the permittee's request, which formed the basis of the PSD non-applicability determination and resulted in the emission standards specified in this permit. Specifically, these restrictions eliminated several control alternatives based on technical as well as regulatory considerations. For any request to modify this emission unit in any way (whether a physical or operational modification, including a change in the allowable hours of operation or heat input, or to alter any short or long-term emission) the permittee shall submit a full PSD permit application complete with a new proposal of the best available control technology as if the unit had never been built. Alternately, the permittee shall submit a determination of PSD applicability for proposed permit changes, which the Department shall consider in making its determination. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C. and 1050221-004-AC]
- (2) The permittee is authorized to, tune, operate and maintain one new combustion turbine with electrical generator set (Siemens/Westinghouse Model 501D5A). The system shall be maintained and tuned in accordance with the manufacturer's recommendations to minimize permitted pollutant emissions. The unit is designed to produce a maximum 135 MW of electrical power. [Rule 62-212.400, F.A.C. (PSD Avoidance) and 1050221-004-AC]
- (3) The permittee shall calibrate, tune, operate, and maintain a water injection system for the unit. The system shall be designed and operated so as to ensure that NO<sub>X</sub> emissions do not exceed 25.0 ppmvd corrected to 15% oxygen while burning natural gas and 42.0 ppmvd corrected to 15% oxygen when burning oil. [Rule 62-212.400, F.A.C. (PSD Avoidance) and 1050221-004-AC]

[Rule 62-213.410, F.A.C.; Applicant's request in Title V permit renewal application received April 23, 2010; and, Permit No(s). 1050221-004-AC and 1050221-006-AC]

A.4. Hours of Operation. The total hours of operation of the combustion turbine while firing distillate fuel oil shall not exceed 400 hours during any consecutive 12-month period. [Rule 62-210.200(PTE), F.A.C. and Permit No. 1050221-004-AC]

{Permitting Note: The hours of operation on natural gas are not specifically limited; however, the annual heat input limitation in Specific Condition A.3. is roughly equivalent to 1,400 hours per year of operation on natural gas at base load.}

#### **Emission Limitations and Standards**

Unless otherwise specified, the averaging times for Specific Conditions A.5.-A.9. are based on the specified averaging time of the applicable test method.

- **A.5.** <u>Visible Emissions</u>. Visible emissions shall not be equal to or greater than 20% opacity. [Rule 62.296.320(4)(b)1, F.A.C. and 1050221-004-AC]
- A.6. NO<sub>x</sub> Emissions. Nitrogen oxides emissions shall not exceed: 25.0 ppmvd corrected to 15% oxygen based on a 24-hour block average when firing natural gas; 42.0 ppmvd corrected to 15% oxygen based on a 24-hour block average when firing distillate oil; and 115 tons/year based on a 12-month rolling total. Compliance with the NO<sub>x</sub> BACT standard does not require correction to International Organization for Standardization (ISO) conditions. [Rule 62-212.400 (PSD Avoidance), F.A.C. and 1050221-004-AC]
- **A.7.** SO<sub>2</sub> Emissions. Sulfur dioxide emissions shall be controlled by the firing of: natural gas with a maximum sulfur content of 2 grains of sulfur per 100 dry standard feet of gas (monthly average); and distillate oil with a maximum sulfur content of 0.05% by weight and 74.9 lb/hour (see Specific Condition **A.12.**). [Rule 62-4.070(3), F.A.C. and 1050221-004-AC]

{Permitting Note: The fuel sulfur limits in Specific Condition A.7. effectively limit the potential emissions of particulate matter ( $PM/PM_{10}$ ) to 2.9 lb/hour when firing natural gas and 58.5 lb/hour when firing distillate oil; however, emissions of particulate matter are not specifically limited.}

#### Subsection A. Emissions Unit 006

- A.8. <u>VOC Emissions</u>. Volatile organic compound emissions shall not exceed 4.0 parts per million by volume dry (ppmvd) corrected to 15% oxygen when firing natural gas and 5.0 ppmvd corrected to 15% oxygen firing distillate fuel oil. [Rule 62-4.070(3), F.A.C. and 1050221-004-AC]
- **A.9.** CO Emissions. Carbon monoxide emissions shall not exceed: 10 ppmvd corrected to 15% oxygen at base load (24-hour average) and 99 tons/year based on a 12-month rolling total while burning all fuels. [Rule 62-212.400(PSD Avoidance), F.A.C. and 1050221-004-AC]

#### **Excess Emissions**

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

- **A.10.** Excess Emissions Allowed. Providing the permittee adheres to best operational practices to minimize the amount and duration of excess emissions, the following conditions shall apply:
  - a. During startup and shutdown, visible emissions excluding water vapor may exceed 20% opacity for up to 2 hours in any 24-hour period.
  - b. During all startups, shutdowns, and malfunctions, the CEMS shall monitor and record emissions. Monitoring data exclusions shall be accordance with Specific Condition A.13. of this permit. Note that the twelve month rolling emissions totals required to be reported for CO and NO<sub>X</sub> do not exclude any data.
  - c. In case of malfunctions, the permittee shall notify the Compliance Authorities within one working day. A full written report on the malfunctions shall be submitted in a quarterly report.
     [Rules 62-210.700(1),(5), 62-4.130, F.A.C. and 1050221-004-AC]

#### **Monitoring of Operations**

- A.11. CMS for Water-to-Fuel Ratio. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG and using water injection to control NO<sub>x</sub> emissions shall operate a continuous monitoring system (CMS) to monitor and record the fuel consumption and the ratio of water-to-fuel being fired in the turbine. This system shall be accurate to within ±5.0 percent and shall be approved by the Administrator. This system shall be used as a backup to the required CEMS. [Rule 62-212.400(PSD), F.A.C., 1050221-004-AC and 40 CFR 60, Subpart GG]
- A.12. Fuel Sulfur Monitoring. The permittee shall demonstrate compliance with the fuel sulfur limit for natural gas specified in this permit by maintaining records of the average sulfur content of the natural gas being supplied for each month of operation in accordance with the following methods: ASTM D1072-80/90/94, D3031-81/86, D3246-81/92, D4084-82/94, D4468-85, D5504-94 or the latest editions or in accordance with approved 40 CFR Part 75 methods. The owner or operator shall determine compliance with the sulfur content standard of 0.05% by weight for distillate oil in accordance with the following methods: ASTM D129-91, D1552-90, D2280-71, D2880-96, D2622-92, D4292, D4294-90 or the latest editions or in accordance with approved 40 CFR Part 75 methods. These methods shall be used to determine the sulfur content of the natural gas fired in accordance with any EPA-approved custom fuel monitoring schedule or natural gas supplier data or the natural gas sulfur content referenced in 40 CFR 75 Appendix D. The analysis may be performed by the permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335. However, the permittee is responsible for ensuring that the procedures in 40 CFR 60.335 or 40 CFR 75 are used to determine the fuel sulfur content for compliance with the 40 CFR 60.333 sulfur dioxide (SO<sub>2</sub>) standard. [Rules 62-4.070(3) and 62-4.160(15); and 1050221-004-AC]

#### **Continuous Monitoring Requirements**

**A.13.** CO,  $NO_X$  and  $O_2$  CEMS. The owner or operator shall calibrate, maintain, and operate a CEMS in the exhaust stack of this emissions unit to measure and record the emissions of  $NO_X$  and CO from the emissions units, and the oxygen  $(O_2)$  content of the flue gas at the location where  $NO_X$  and CO are monitored, in a

#### Subsection A. Emissions Unit 006

manner sufficient to demonstrate compliance with the emission limits of this permit. The CEMS shall be used to demonstrate compliance with the emission limits for NO<sub>x</sub> and CO within this permit.

- a. The NO<sub>X</sub> and O<sub>2</sub> 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, Subparts B and C. Record keeping and reporting shall be conducted pursuant to 40 CFR Part 75, Subparts F and G. Annual Relative Accuracy Test Audit (RATA) tests required for the NO<sub>X</sub> monitor shall be performed using EPA Method 20 or 7E in Appendix A of 40 CFR 60. The RATA tests required for the oxygen monitor shall be performed using EPA Method 3B, of Appendix A of 40 CFR 60. The span for the oxygen monitor shall not be greater than 21%. The permittee shall conduct an annual the RATA tests at 100% output in accordance with the applicable CEMS requirements.
- b. The CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4. The O<sub>2</sub> monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 3. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of section 7 shall be made each calendar quarter, and reported semi-annually to the Compliance Authority. The RATA tests required for the CO monitor shall be performed using EPA Method 10, of Appendix A of 40 CFR 60. The Method 10 analysis shall be based on a continuous sampling train, and the ascarite trap may be omitted or the interference trap of section 10.1 may be used in lieu of the silica gel and ascarite traps. The span for the CO monitor shall not be greater than 100 ppmvd corrected to 15% oxygen. The RATA tests required for the oxygen monitor shall be performed using EPA Method 3B, of Appendix A of 40 CFR 60. The span for the oxygen monitor shall not be greater than 21%.
- c. For purposes of determining compliance with the NO<sub>X</sub> emission limits based on a 24-hour block average, missing data shall not be substituted pursuant to 40 CFR 75. Instead the block average shall be determined using the remaining hourly data in the 24-hour block. However, the permittee's record keeping for the EU-006 NO<sub>X</sub> emissions caps (tons/year) shall be in full agreement with data submitted for inclusion on EPA's Acid Rain website which includes all documented exclusions reported to the Department in a quarterly report. The permittee may exclude start up, shutdown, and Part 75 missing data from the ppmvd calculations. However, this data will need to be recorded for the tons/year calculations for netting purposes and as required by the Acid Rain website.
- The CO, NO<sub>x</sub> and O<sub>2</sub> data shall be recorded by the CEMS during episodes of startup, shutdown and malfunction. No valid monitoring data shall be excluded from the mass-based (tons/year) CO and NO<sub>x</sub> 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<sub>x</sub> emissions limits. CO and NO<sub>x</sub> 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 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.
- e. The 24-hour block averages are calculated as follows: starting at midnight of each operating day, a 24-hour block average shall be calculated from 24 valid hourly average emission rate values. Each hourly value shall be computed using at least one data point in each fifteen-minute quadrant of an hour, where the unit combusted fuel during that quadrant of an hour. Notwithstanding this requirement, an hourly

#### Subsection A. Emissions Unit 006

value shall be computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour). A valid hourly emission rate shall be calculated for each hour in which at least two measurements are obtained at least 15 minutes apart. The owner or operator shall use all valid measurements or data points collected during an hour to calculate the hourly averages. All data points collected during an hour shall be, to the extent practicable, evenly spaced over the hour. If the CEMS measures concentration on a wet basis, the CEM system shall include provisions to determine the moisture content of the exhaust gas and an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Alternatively, the owner or operator may develop through manual stack test measurements a curve of moisture contents in the exhaust gas versus load for each allowable fuel, and use these typical values in an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Final results of the CEMS shall be expressed as ppmvd corrected to 15% oxygen. Monitoring data shall be excluded from the 24-hour block average for the following periods: startup, shutdown, or malfunction as defined in Rules 62-210.200 and 62-210.700, F.A.C., when fuel is not fired in the unit; CEMS quality assurance checks; or when the CEMS is out of control.

- f. For the annual (tons/year) emissions limits of CO and NO<sub>X</sub>, measurements shall be in pounds (converted to tons) and be based on a 12-month rolling total starting at the first day of each calendar month. Each monthly total shall be calculated by adding the pounds per day for each valid operating day (all fuels) within the calendar month. This monthly total shall be combined with the emissions from the previous valid 11 calendar months and shall comprise a 12-month rolling total.
- g. Subject to EPA approval, the following alternate monitoring may be used to demonstrate compliance. When requested by the Department, the CEMS emission rates for NO<sub>X</sub> on this unit shall be corrected to ISO conditions to demonstrate compliance with the NO<sub>X</sub> standard established in 40 CFR 60.332. Data collected from the NO<sub>X</sub> CEMS shall be used to report excess emissions in accordance with 40 CFR 60.334(c)(1) of NSPS, Subpart GG.
- h. CEMS Data Exclusion Combustor Tuning. CEMS data collected during initial or other major combustor tuning sessions shall be excluded from the CEMS compliance demonstration for short term emission standards provided the tuning session is performed in accordance with the manufacturer's specifications. All valid emissions data shall be used to demonstrate compliance with annual emissions caps. A "major tuning session" would occur after completion of initial construction, a combustor changeout, a major repair or maintenance to a combustor, or other similar circumstances. Prior to performing any major tuning session, the permittee shall provide the Department's Southwest District Compliance Authority with advance notice that details the activity and proposed tuning schedule. The notice shall be by telephone, facsimile transmittal, or electronic mail. [Rules 62-4.070(3), 62-212.400(PSD), F.A.C., 62-210.700(5) F.A.C. and PSD-FL-185A]
- i. Note that the twelve month rolling emissions totals required to be reported for CO and  $NO_X$  do not exclude any data.

[Rules 62-4.070(3) and 62-212.400(PSD), F.A.C.; 1050221-004-AC; Subparts B, C, F and G in 40 CFR Part 75; Appendix A, B and F of 40 CFR 60; Subparts A and GG in 40 CFR 60; <u>applicant request dated April 23</u>, 2010 and 1050334-009-AC]

#### **Test Methods and Procedures**

**A.14.** <u>Test Methods</u>. 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		
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources		
9	Visual Determination of the Opacity of Emissions from Stationary Sources		
10	Determination of Carbon Monoxide Emissions from Stationary Sources		

#### Subsection A. Emissions Unit 006

Method	Description of Method and Comments
18	Measurement of Gaseous Organic Compound Emissions (Gas Chromatography)  {Note: Optional testing in accordance with EPA Method 18 may be conducted to account for the actual methane fraction of the measured VOC emissions, if specifically requested.}
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates {Note: Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.}
20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines
25A	Method for Determining Gaseous Organic Concentrations (Flame Ionization)

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-297.401,62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A; 40 CFR 60.334; and 1050221-004-AC]

- **A.15.** Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- A.16. Annual Compliance Tests Required. During each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>), each emissions unit (EU) shall be tested to demonstrate compliance with the emissions standards for CO, NO<sub>X</sub> and visible emissions. If conducted at permitted capacity, CO and NO<sub>X</sub> emissions data collected during the annual CO and NO<sub>X</sub> continuous monitor RATA required pursuant to 40 CFR 75 may be substituted for the required annual performance test. [Rule 62-297.310(7), F.A.C. and Permit No. 1050221-004-AC]
- A.17. Compliance Tests Prior To Renewal. Prior to renewing the air operation permit, the permittee shall conduct compliance tests for CO, NO<sub>x</sub>, VOC, and visible emissions from the combustion turbine. These tests shall be conducted within the 12-month period prior to renewing the air operation permit. For pollutants that are required to be tested annually, the permittee may submit the most recent annual compliance test to satisfy the requirements of this provision. Compliance testing is only required during the combustion of natural gas fuel. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Conditions A.5. A.9. [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]
- **A.18.** Tests After Substantial Modifications. All performance tests required for initial startup shall also be conducted after any substantial modification and appropriate shakedown period of air pollution control equipment. Shakedown periods shall not exceed 100 days after re-starting the combustion turbine. [1050221-004-AC]
- A.19. Additional Compliance Test Requirements. If the unit does not combust natural gas for greater than 400 hours during the federal fiscal year, the annual compliance tests are not required, and the annual CO RATA test shall be conducted in conjunction with the next required Part 75 NO<sub>x</sub> RATA. Annual RATA testing at 100% output may be utilized to satisfy the annual testing requirements for CO and NO<sub>x</sub>. No other methods may be used for compliance testing without prior written approval from the Department. [1050221-004-AC; 40 CFR 60.7 and 60.8; Rules 62-297.310(7)(a)4 and 9, F.A.C.]

## Subsection A. Emissions Unit 006

#### Recordkeeping and Reporting Requirements

**A.20.** Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Condition(s)
Notice of CO and NO <sub>X</sub> Caps	Monthly	A.22.
Notice of Fuel Operations	Monthly	A.23.

- **A.21.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.
- A.22. Records of CO and NO<sub>X</sub> Caps. Annual (12-month rolling total) NO<sub>X</sub> and CO limits shall be recalculated monthly and available on site for inspection purposes. Additionally, each year the facility shall submit all 12 months worth of calculations as part of the AOR submission. [1050221-004-AC]
- A.23. Monthly Operations Summary. By the fifth calendar day of each month, the permittee shall record the hours of operation by fuel type, 12-month emission totals for NO<sub>X</sub> and CO and amount of each fuel fired for the combustion turbine. The information shall be recorded in a written or electronic log and shall summarize the previous month of operation and the previous 12 months of operation. Information recorded and stored as an electronic file shall be available for inspection and/or printing within at least one day of a request from the Compliance Authority. [Rule 62-4.160(15), F.A.C. and 1050221-004-AC]

#### Other Requirements

A.24. NSPS Provisions. The combustion turbine is subject to applicable requirements in Subpart A (General Provisions) and Subpart GG (Stationary Gas Turbines) of 40 CFR 60.

#### Subsection B. Emissions Units 007, 008, 009, 010

The specific conditions in this section apply to the following emissions unit(s):

EU No.	Brief Description				
Osprey Energy Center					
007	Nominal 170 megawatt (MW) combustion turbine-electrical generator set consisting of a Siemens Westinghouse "F" Class Model No. 501FD unit.				
008	Nominal 170 MW combustion turbine-electrical generator set consisting of a Siemens Westinghouse "F" Class Model No. 501FD unit.				
009	HRSG equipped with 250 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 megawatt (MW) combined cycle unit consisting of two combustion turbines, two heat recovery steam generators (HRSG) with duct burner systems, and one shared nominal 200 MW steam-electrical generator set. Each combustion turbine (CT) is fired solely with pipeline natural gas and equipped with inlet foggers on the inlet air system. Each system employs selective catalytic reduction (SCR) to control  $NO_X$  emissions. Continuous emissions monitoring systems (CEMS) are used to determine compliance with  $NO_X$  emission standards. The HRSG duct burners use low  $NO_X$  burners to fire natural gas for peak power production. Stack height of the combined cycle units is 142 feet, stack exit diameter is 18.5 feet, volumetric flow rate is 1,021,100 actual cubic feet per minute (acfm) and stack exit temperature is 200 degrees Fahrenheit.

Although SCR systems are installed on the combined cycle units, compliance assurance monitoring (CAM) does not apply because compliance with the NO<sub>X</sub> emission standards is demonstrated by CEMS.

{Permitting Note: Emissions units 007 and 008 are regulated under Phase II of the federal Acid Rain Program; NSPS Subpart A (General Provisions) and NSPS Subpart GG (Stationary Gas Turbines) in 40 CFR 60; and Rule 212.400(PSD), F.A.C. Emissions units 009 and 010 are regulated under NSPS Subpart A (General Provisions), NSPS Subpart Da (Standards for Performance for Electric Utility Steam Generating Units for Units Constructed After September 18, 1978) in 40 CFR 60; and Rule 212.400(PSD), F.A.C.}

#### Essential Potential to Emit (PTE) Parameters

- **B.1.** Permitted Capacity Combustion Turbines. Based on the lower heating value (LHV) of the fuel at ISO conditions, the maximum heat input rate shall not exceed 1,875 MMBtu/hour when firing natural gas without power augmentation. The maximum heat input rate will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions shall be maintained by the plant. [Rule 62-210.200(PTE), F.A.C. and PSD-FL-287A]
- **B.2.** Permitted Capacity HRSG with Duct Burners. The maximum heat input rate when firing natural gas in each HRSG duct burner system shall not exceed 250 MMBtu/hour based on the LHV. [Rule 62-210.200(PTE), F.A.C.]
- **B.3.** Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]
- **B.4.** Hours of Operation. The maximum allowable hours of operation for the 527 MW Combined Cycle Plant are 8,760 hours per year while firing natural gas. [Rule 62-210.200(PTE), F.A.C. and PSD-FL-287]

#### Subsection B. Emissions Units 007, 008, 009, 010

#### **B.5.** Methods of Operation.

- a. Authorized Fuels. Only natural gas shall be fired in each combustion turbine and each HRSG duct burner system. Fuel oil firing is not permitted.
- b. Other. SCR System: The permittee shall operate and maintain the SCR system at all times of combustion turbine operation except during periods of startup and shutdown as dictated by manufacturer's guidelines and in accordance with this permit.

[Rules 62-210.200(PTE), 62-210.650, F.A.C. and PSD-FL-287]

#### **Emission Limitations and Standards**

Unless otherwise specified, the averaging time(s) for Specific Condition(s) **B.6.-B.12**. are based on the specified averaging time of the applicable test method.

#### **B.6.** $NO_X$ Standards.

- a. Combustion Turbine On and Duct Burner On or Off. As determined by CEMS, the concentration of NO<sub>X</sub> in the stack exhaust gas shall not exceed 3.5 ppmvd corrected to 15% oxygen based on a 24-hour block average. This limit shall also apply whether or not each unit is operating with duct burner on and/or in power augmentation mode.
- b. Combustion Turbine On with Power Augmentation and Duct Burners On. As demonstrated by annual stack test, NO<sub>X</sub> emissions shall not exceed 27.5 lb/hour (at 95° F ambient temperature).
- c. Duct Burner System (Only). NO<sub>X</sub> emissions from the duct burner systems shall not exceed 0.1 lb/MMBtu, which is more stringent than the NSPS Subpart Da standards. When NO<sub>X</sub> monitoring data is not available, substitution for missing data shall be handled as required by 40 CFR 75 to calculate any specified average time. As allowed for in Specific Condition B.13., CEMS data collected during the following periods may be excluded from the 24-hour block average: limited startup data; limited shutdown data; and missing data as defined by 40 CFR 75.

[Rules 62-4.070 and 62-212.400(PSD), F.A.C.; PSD-FL-287 and 40 CFR 60.334(b)(3)(iii)]

- **B.7.** Ammonia Slip Standard. As determined by the ammonia testing and monitoring provisions of the subsection, the concentration of ammonia in the exhaust gas shall not exceed 9.0 ppmvd corrected to 15% oxygen. [Rules 62-4.070 and 62-212.400(PSD), F.A.C.; and PSD-FL-287]
- **B.8.** CO Standards. As demonstrated by CEMS, CO emissions shall not exceed the following.
  - a. For those days when no valid hour includes the use of duct burner firing, power augmentation or operation below 30% base load (excluding periods of startup and shutdown): CO emissions in the stack exhaust gas shall not exceed 10 ppmvd corrected to 15% oxygen (at ISO conditions) based on a 24-hour block average.
  - b. For those days when at least one valid hour includes the use of duct burner firing, power augmentation or operation below 30% base load (excluding periods of startup and shutdown): CO emissions in the stack exhaust gas shall not exceed 17 ppmvd corrected to 15% oxygen (at ISO conditions) based on a 24-hour block average.

    [Rule 62-212.400, F.A.C. and PSD-FL-287]
- **B.9.** VOC Standards. As demonstrated by initial tests, VOC emissions shall not exceed the following.
  - a. Base load with the Duct Burner Off. VOC emissions in the stack exhaust gas shall not exceed 2.3 ppmvd corrected to 15% oxygen (at ISO conditions) and 5.8 lb/hour.
  - b. Base load with Power Augmentation and the Duct Burner On. VOC emissions in the stack exhaust gas shall not exceed 4.6 ppmvd corrected to 15% oxygen (at ISO conditions) and 12.4 lb/hour. [Rule 62-212.400, F.A.C. and PSD-FL-287]
- **B.10.** SO<sub>2</sub> Standards. SO<sub>2</sub> emissions shall be limited by firing natural gas with a maximum sulfur content of 2 grains/100 standard cubic feet of gas. Compliance with this requirement shall be demonstrated by

#### Subsection B. Emissions Units 007, 008, 009, 010

implementing the fuel monitoring provisions specified in this subsection as well as the applicable requirements in NSPS Subparts Da (Duct Burners) and GG (Combustion Turbines) in 40 CFR 60 regarding the SO<sub>2</sub> emissions standards. [Rules 62-4.070(3) and 62-212.400(PSD), F.A.C.; PSD-FL-287; and Subparts Da and GG in 40 CFR 60]

{Permitting Note: This effectively limits the combined SO<sub>2</sub> emissions from EU-007 and EU-008 to 95.4 tons/year.}

- **B.11.** PM/PM<sub>10</sub> Standards. As demonstrated by initial stack tests, PM/PM<sub>10</sub> emissions from each unit shall not exceed 24.1 lb/hour at 100% output with the duct burner on and operating in the power augmentation mode. [Rules 62-4.070(3) and 62-212.400(PSD), F.A.C.; and PSD-FL-287]
- **B.12.** VE Standards. Visible emissions shall not exceed 10% opacity. [Rules 62-4.070(3) and 62-212.400(PSD), F.A.C.; and PSD-FL-287]

#### **Excess Emissions**

B.13. Excess Emissions. Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two hours (120 minutes) in any 24-hour period operating day except during both "cold start-up" to, and shutdowns from, combined cycle plant 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 start-up is defined as a startup 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. Operation below 30% output per turbine shall otherwise be limited to 2 hours in any 24-hour period. [Rule 62-210.700(3), F.A.C. and PSD-FL-287; applicant request dated April 23, 2010 and 1050334-009-AC.]

#### **Monitoring of Operations**

**B.14.** Fuel Monitoring. To demonstrate compliance with the fuel sulfur limit of this permit, the permittee shall use the appropriate sampling and analytical methods identified in either Appendix D of 40 CFR 75 or 40 CFR 60.335. The monitoring frequency shall be determined by the requirements of 40 CFR 60.334 or an approved custom fuel monitoring schedule in accordance with Appendix D of 40 CFR 75 or 40 CFR 60.334. [PSD-FL-287]

#### **Continuous Monitoring Requirements**

- **B.15.** CO, NO<sub>X</sub> and O<sub>2</sub> CEMS. To demonstrate continuous compliance with the applicable standards, the permittee shall install, calibrate, maintain, and operate CEMS in each stack to measure and record CO and NO<sub>X</sub> emissions and oxygen concentration from these units.
  - a. NO<sub>X</sub> and O<sub>2</sub> CEMS: The NO<sub>X</sub> and O<sub>2</sub> 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, Subparts B and C. Record keeping and reporting shall be conducted pursuant to 40 CFR Part 75, Subparts F and G. Annual RATA tests required for the NO<sub>X</sub> monitor shall be performed using EPA Method 20 or 7E in Appendix A of 40 CFR 60. The RATA tests required for the oxygen monitor shall be performed using EPA Method 3B in Appendix A of 40 CFR 60. The span for the oxygen monitor shall not be greater than 21%. The span for the NO<sub>X</sub> monitor shall be based on the emissions standards. The use of the missing data substitution methodology provided in Subpart D of 40 CFR 75 is not required for identifying excess NO<sub>X</sub> emissions. Instead, periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance report required in 40 CFR 60.7(c). As allowed for in Specific Condition B.13. CEMS data collected during the following periods may be excluded from the 24-hour block average: limited startup data; limited shutdown data; and missing data as defined by 40

### Subsection B. Emissions Units 007, 008, 009, 010

- CFR 75. Upon request from DEP, the CEMS emission rates shall be corrected to ISO conditions to demonstrate compliance with the applicable standards listed within this permit and established in 40 CFR 60.332.
- b. CO and Oxygen CEMS: The permittee shall install, operate and maintain a CO CEMS certified pursuant to Performance Specification 4 in Appendix B of 40 CFR 60. The oxygen monitor shall be certified pursuant to Performance Specification 3 in Appendix B of 40 CFR 60. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of section 7 shall be made each calendar quarter, and reported semi-annually to the Compliance Authority. The RATA tests required for the CO monitor shall be performed using EPA Method 10 in Appendix A of 40 CFR 60. The Method 10 analysis shall be based on a continuous sampling train, and the ascarite trap may be omitted or the interference trap of section 10.1 may be used in lieu of the silica gel and ascarite traps. The span for the CO monitor shall be based on the emissions standards. The RATA tests required for the oxygen monitor shall be performed using EPA Method 3B in Appendix A of 40 CFR 60. The span for the oxygen monitor shall not be greater than 21%.
- c. Continuous Compliance: Continuous compliance with the applicable CO and NO<sub>X</sub> emission limits shall be demonstrated by CEMS. Based on the CEMS data, a separate compliance determination is conducted at the end of each period and a new average emission rate is calculated from the arithmetic average of all valid hourly emission rates from the previous period. Valid hourly emission rates shall not include periods of start up or shutdown unless prohibited by 62-210.700, F.A.C. A valid hourly emission rate shall be calculated for each hour in which at least two measurements are obtained at least 15 minutes apart. Excess emissions periods shall be reported as required in Specific Conditions B.13. and B.27.
- d. CEMS Data Exclusion Combustor Tuning. CEMS data collected during initial or other major combustor tuning sessions shall be excluded from the CEMS compliance demonstration for short term emission standards provided the tuning session is performed in accordance with the manufacturer's specifications. All valid emissions data shall be used to demonstrate compliance with annual emissions caps. A "major tuning session" would occur after completion of initial construction, a combustor changeout, a major repair or maintenance to a combustor, or other similar circumstances. Prior to performing any major tuning session, the permittee shall provide the Department's Southwest District Compliance Authority with advance notice that details the activity and proposed tuning schedule. The notice shall be by telephone, facsimile transmittal, or electronic mail.

[Rules 62-4.070, 62-212.400(PSD), F.A.C., 62-210.700, F.A.C.; PSD-FL-185A, PSD-FL-287; <u>applicant request dated April 23, 2010; 1050334-009-AC</u> and 40 CFR 75]

#### **Test Methods and Procedures**

**B.16.** Test Methods. As required, the following test methods shall be used to determine emissions.

Method	ethod Description of Method and Comments		
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content		
5	Determination of Particulate Emissions from Stationary Sources.		
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources		
9	Visual Determination of the Opacity of Emissions from Stationary Sources		
10	Determination of Carbon Monoxide Emissions from Stationary Sources		
18	Measurement of Gaseous Organic Compound Emissions (Gas Chromatography) {Note: Optional testing in accordance with EPA Method 18 may be conducted to account for the actual methane fraction of the measured VOC emissions, if specifically requested.}		
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates {Note: Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.}		

#### Subsection B. Emissions Units 007, 008, 009, 010

20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines
25	Method for Determining Gaseous Organic Concentrations
25A	Method for Determining Gaseous Organic Concentrations (Flame Ionization)
26A	(Modified) Method for Determining Ammonia Emissions
206	Method for Determining Ammonia Emissions (Ion Chromatographic Analysis)
320	Measurement of Vapor Phase Organic and Inorganic Emissions by Extractive Fourier Transform Infrared (FTIR) Spectroscopy (for Ammonia)

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A; 40 CFR 60.334; and PSD-FL-287]

- **B.17.** Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- B.18. Annual Compliance Tests Required. During each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>), each emissions unit (EU) shall be tested to demonstrate compliance with the emissions standards for CO, NO<sub>X</sub>, ammonia and visible emissions. The required annual RATA test data may be used to demonstrate compliance with the annual test requirement for CO and NO<sub>X</sub> emissions. Compliance with the CO standards serves as a surrogate for compliance with the VOC standards. [PSD-FL-287; 40 CFR 60.7 and 60.8; Rules 62-297.310(7)(a)4 and 9, F.A.C.]
- **B.19.** Compliance Tests Prior To Renewal. Prior to renewing the air operation permit, the permittee shall conduct compliance tests for CO, NO<sub>X</sub>, PM, VOC, and visible emissions from the combustion turbine. These tests shall be conducted within the 12-month period prior to renewing the air operation permit. For pollutants that are required to be tested annually, the permittee may submit the most recent annual compliance test to satisfy the requirements of this provision. [PSD-FL-287; 40 CFR 60.7 and 60.8; Rules 62-297.310(7)(a)4 and 9, F.A.C.]
- **B.20.** Tests After Substantial Modifications. All performance tests required for initial startup shall also be conducted after any substantial modification and appropriate shakedown period of air pollution control equipment. Shakedown periods shall not exceed 100 days after re-starting the combustion turbine. [PSD-FL-287; 40 CFR 60.7 and 60.8; Rules 62-297.310(7)(a)4 and 9, F.A.C.]
- **B.21.** Ammonia Slip. For each required test, the permittee shall calculate and report the ammonia slip (ppmvd @ 15% O<sub>2</sub>) at the measured NO<sub>X</sub> emission rate (lb/hour) as a means of compliance with the BACT standard. [PSD-FL-287; 40 CFR 60.7 and 60.8; Rules 62-297.310(7)(a)4 and 9, F.A.C.]
- **B.22.** Testing Procedures. Unless otherwise specified, testing of emissions shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum heat input rate allowed by the permit, corrected for the average ambient air temperature during the test with 100% represented by a curve depicting heat input vs. compressor inlet temperature. Procedures for these tests shall meet all applicable requirements in Appendix TR of this permit. [PSD-FL-287]
- **B.23.** SCR and Ammonia Slip. The permittee shall be capable of calculating ammonia slip at the Department's request according to the following procedure.
  - a. In accordance with the manufacturer's specifications, the permittee shall calibrate, operate and maintain an ammonia flow meter to measure and record the ammonia injection rate to the SCR system of each unit.

#### Subsection B. Emissions Units 007, 008, 009, 010

- b. The permittee shall develop performance curves for the appropriate ammonia injection rate versus load based on data collected by the NO<sub>x</sub> CEMS and the ammonia flow meter. During periods of CEMS downtime, the permittee shall operate at an ammonia flow rate for the given operating load to ensure compliance with the NO<sub>x</sub> standard.
- c. Similarly, the permittee shall conduct tests for a range of load conditions and shall determine and report the ammonia flow rate required to comply with the ammonia and NO<sub>X</sub> standards. During periods of NO<sub>X</sub> CEMS downtimes or malfunctions, the permittee shall adjust the ammonia injection rate based on the previous quarter's operating hours for NO<sub>X</sub>, ammonia flow and load and adjust the ammonia flow rate as necessary to comply with NO<sub>X</sub> standard.
- d. Ammonia emissions shall be calculated continuously using inlet and outlet NO<sub>X</sub> concentrations from the SCR system and ammonia flow supplied to the SCR system. The calculation procedure shall be provided with the CEMS monitoring plan required by 40 CFR Part 75. The following calculation represents one means by which the permittee may demonstrate compliance with this condition:

Ammonia Slip (ppmvd @  $15\% O_2$ ) = (A - (BC/1,000,000)) (1,000,000/B) (D)

#### Where:

A = ammonia injection rate (lb/hour) / 17 lb/lb-mol

B = dry gas exhaust flow rate (lb/hour) / 29 lb/lb·mol

C = change in measured NO<sub>X</sub> (ppmvd @ 15% O<sub>2</sub>) across catalyst

D = correction factor, derived annually during compliance testing by comparing actual to tested ammonia slip.

The calculation along with each newly determined correction factor shall be submitted with each annual compliance test. Calibration data ("as found" and "as left") shall be provided for each measurement device utilized to make the ammonia emission measurement and submitted with each annual compliance test. The calculation will exclude periods of startup and shutdown when determining the ammonia slip limit. The permittee shall notify the Department within 2 business days if the calculated ammonia emissions exceed 9.0 ppmvd corrected to 15%  $O_2$  over a 3-hour block average. The notification shall include a corrective action plan to reduce ammonia emissions below 9 ppmvd corrected to 15%  $O_2$  over a 3-hour block average. Upon specific request by the Department, a special re-test shall occur as described in the previous conditions concerning annual test requirements to demonstrate compliance with all  $NO_X$  and ammonia slip related permit limits. [PSD-FL-287]

#### Recordkeeping and Reporting Requirements

**B.24.** Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Condition(s)
CEMS Reports	Semi-annually	B.26.
Notice of Excess Emissions	As Required	B.27.

- **B.25.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.
- **B.26.** Continuous Monitoring System Reports. The monitoring devices shall comply with the certification and quality assurance, and any other applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) or 40 CFR Part 75. Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F or 40 CFR 75. [PSD-FL-287]

### Subsection B. Emissions Units 007, 008, 009, 010

**B.27.** Reporting Excess Emission. If a unit exceeds the CO or NO<sub>X</sub> emissions standards based on 24-hour block average, the permittee shall report the excess emissions to the Compliance Authority within one working day. Also, for the purpose of reporting excess NO<sub>X</sub> emissions in accordance with 40 CFR 60.334, the NO<sub>X</sub> CEMS shall be used in lieu of the water-to-fuel ration data. [Rules 62-210.700, 62-4.130 and 62-4.160(8), F.A.C.; 40 CFR 60.7; and PSD-FL-287].

#### OTHER REQUIREMENTS

**B.28.** NSPS Provisions. The combustion turbines are subject to the applicable requirements of Subpart A (General Provisions) and Subpart GG (Stationary Gas Turbine) in 40 CFR 60. The HRSG equipped with duct burner systems are subject to the applicable requirements of Subpart A (General Provisions) and Subpart Da (Standards for Performance for Electric Utility Steam Generating Units for Units Constructed After September 18, 1978) in 40 CFR 60.

Operated by: Calpine Corporation

ORIS Codes: 54658, Auburndale Peaker Energy Center

55412, Osprey Energy Center

The emissions units listed below are regulated under Acid Rain, Phase II.

E.U.				
ID No.	Brief Description			
Auburnda	le Peaker Energy Center			
006	Nominal 120 MW simple cycle combustion turbine-electrical generator set			
Osprey Energy Center				
007	Nominal 170 MW combined cycle combustion turbine-electrical generator set (CT1)			
008	Nominal 170 MW combined cycle combustion turbine-electrical generator set (CT2)			

**A.1.** The Phase II Acid Rain Part application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain units must comply with the standard requirements and special provisions set forth in the application listed below:

DEP Form No. 62-210.900(1)(a), dated 04/20/10, received 04/23/10. [Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

- A.2. <u>Sulfur Dioxide (SO<sub>2</sub>) Emission Allowances</u>. SO<sub>2</sub> emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.
  - a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.
  - b. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
  - c. Allowances shall be accounted for under the Federal Acid Rain Program. [Rule 62-213.440(1)(c)1., 2. & 3., F.A.C.]
- **A.3.** Comments, notes, and justifications: None.

Acid Rain Part A	pplication	٦
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For more information, see instructions and refer to 40 CFR 72.30, 72.31, and 74; and Chapter 62-214, F.A.C.

This submission is:	☐ New	Revised	Renewal	
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STEP 1

Identify the source by plant name, state, and ORIS or plant code.

Auburndale Peaker Energy Center (APEC) Osprey Energy Center (OEC) Plant name	Florida State	55833 (APEC) 55412 (OEC)
<u> </u>		ORIS/Plant Code

STEP 2 Enter the unit ID# for every Acid Rain unit at the Acid Rain source in column

If unit a SO<sub>2</sub> Opt-in unit, enter "yes" in column "b".

For new units or SO<sub>2</sub> Opt-In units, enter the requested information in columns "d" and "e."

	а	ь	С	đ	e
	Unit ID#	SO <sub>2</sub> Opt-in Unit? (Yes or No)	Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	New or SO <sub>2</sub> Opt-in Units Commence Operation Date	New or SO <sub>2</sub> Opt-in Units  Monitor Certification Deadline
	6 (APEC)	No	Yes	N/A	N/A
	CT1 (OEC)	No	Yes	N/A	N/A
	CT2 (OEC)	No	Yes	N/A	N/A
			Yes		
			Yes		
I			Yes		
			Yes		
1			Yes		
ļ			Yes		
ļ			Yes		
ŀ			Yes		
L			Yes		

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Auburndale Peaker Energy Center (APEC) Osprey Energy Center (OEC) Plant Na ne (from STEP 1)

#### STEP 3

#### Read the standard requirements.

#### Acid Rain Part Requirements.

- (1) The designated representative of each Aold Rain source and each Aold Rain unit at the source shalt.
  (i) Submit a complete Aoid Rain Part application (including a compliance plan) under 40 CFR Part 72 and Rules 62-214.320 and 330, F.A.C., in accordance with the deadlines specified in Rule 82-214.320, F.A.C.; and
  (ii) Submit in a timely manner any supplemental information that the DEP determines is necessary in order to review an Aold Rain Part application and issue or deny an Aold Rain Part;
  (2) The owners and operators of each Aold Rain source and each Aold Rain unit at the source shalt;
  (i) Operate the unit in compliance with a complete Aold Rain Part application or a superseding Aold Rain Part issued by the DEP; and
  (ii) Have an Aold Rain Part.
  - ntal information that the DEP determines is necessary in order to review an Acid Rain Part

#### Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR Part 75, and Rule 62-214.420, F.A.C. (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for suffur dioxide and nitrogen oxides under the Acid Rain
- (3) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutarits or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating parmit for the
- (4) For applications including a SO<sub>2</sub> Opt-in unit, a monitoring plan for each SO<sub>2</sub> Opt-in unit must be submitted with this application pursua 40 CFR 74.14(a). For renewal applications for SO<sub>2</sub> Opt-in units include an updated monitoring plan if applicable under 40 CFR 75.53(b).

#### Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
  (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another Acid Rain unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
  (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
  (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Acid.

- An Acid Rain unit shall be subject to the requirements under peragraph (1) of the sulfur dioxide requirements as follows:

  (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or

  (ii) Starting on the later of January 1, 2000, or the desdline for monitor certification under 40 CFR Part 75, an Acid Rain unit under 40 CFR
- 72.6(a)(3).
- (4) Allowances shall be hald in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain
- Program.

  (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the suifur dioxide requirements prior to the calendar year for which the allowance was allocated.

  (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain Program, the Acid Rain Program, the Acid Rain Program, the Acid Rain Program and the Acid Rain Program and the Acid Rain Program. Or provision of the Acid Rain Program and the Acid Ra
- allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides

#### Excess Emissions Requirements.

- (1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as
- (2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
  (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and
  (ii) Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.

#### Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA or the DEP:

  (i) The certificate of representation for the designated representative for the source and each Acid Rein unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-yeer period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;

  (ii) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordscepting, the 3-year period shall apply;

  (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

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STEP 3 Continued.

Auburndale Peaker Energy Center (APEC) Osprey Energy Center (OEC) Plant Name (from STEP 1)

#### Recordkeeping and Reporting Requirements (cont)

- (iv) Copies of all documents used to complete an Acid Rain Peri application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72, Subpart I, and 40 CFR Part 75.

#### Liability.

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8, Inctuding any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.

  (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.

  (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.

  (4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.

  (5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain Program that applies to an Acid Rain and operators of such source and of the Acid Rain units at the source.

  (6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.

  (6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.

  (7) Each violation of A provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operators or the designated representative of operator or designated representative of such source or unit, shall be a separate violation of the Acid.

No provision of the Acid Rain Program, an Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7or 72.8 shall be

- construed as:

  (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rein source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;

  (2) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's
- (2) Limiting the number of allowances a unit can hold; provided, that the number of allowances need by the unit snau not smed one source's obligation to comply with any other provisions of the Act;

  (3) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, or limiting such state regulation, including any prudence review requirements under such state law;

  (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

  (5) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.

STEP 4 For SO<sub>2</sub> Opt-in units only.

In column "f" enter the unit ID# for every SO<sub>2</sub> Opt-in unit identified in column "a" of STEP 2.

For column "g" describe the combustion unit and attach information and diagrams on the combustion unit's configuration.

In column "h" enter the hours

f	g	h (not required for renewal application)
Unit ID#	Description of the combustion unit	Number of hours unit operated in the six months preceding initial application

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	Auburndale Pea Osprey Energy	ker Energy Center (API Center (OEC)	EC)			
.25					<u> </u>	
For SO <sub>2</sub> Opt-in units only.	ŀ	j	k	ı	m	n
(Not required for SO <sub>2</sub> Opt-in renewal applications.)	Unit ID#	Baseline or Alternative Baseline under	Actual SO₂ Emissions Rate under	Allowable 1985 SO <sub>2</sub> Emissions Rate under	Current Allowable SO <sub>2</sub> Emissions Rate under	Current Promulgated SO <sub>2</sub> Emissions Rate under
the unit ID# for every SO <sub>2</sub> Opt-in unit identified in		40 CFR 74.20 (mmBtu)	40 CFR 74.22 (lbs/mmBtu)	40 CFR 74.23 (lbs/mmBtu)	40 CFR 74.24 (lbs/mmBtu)	40 CFR 74.25 (lbs/mmBtu)
column "f").			(******	<del>  `                                   </del>	(***********	
For columns "j" through "n," enter						
the information required under 40						
CFR 74.20-74.25 and attach all						
supporting documentation required by 40 CFR						
74.20-74.25.						<del></del>
				<del>                                     </del>		
(					<u> </u>	
STEP 6	thermal energy	on source seeks to quality for plan as provided in 40 CFR tether the combustion unit w	74.47 for combust	tion sources must be att	ached.	rgy, e
For SO <sub>2</sub> Opt-In units only.	C. A statement the exemption under	at the combustion unit is not er 40 CFR 72.7, 72.8, or 72.	en affected unit ui 14.	nder 40 CFR 72.6 and d	loes not have an	
Attach additional requirements, certify and sign.	D. Attach a complete compliance plan for SQ <sub>2</sub> under 40 CFR 72.40. E. The designated representative of the combustion unit shall submit a monitoring plan in accordance with 40 CFR 74.61. For renewel application, submit an updated monitoring plan if applicable under 40 CFR 75.53(b). F. The following statement must be signed by the designated representative or alternate designated representative of the combustion source: "I certify that the data submitted under 40 CFR Part 74, Subpart C, reflects actual operations of the combustion source and has not been adjusted in any way."					
	Signature		<del></del> .	Date		
STEP 7	,	r designated represent		- ,	•	
Read the certification statement; provide name, title, owner company name,	I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under persetty of taw that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting lates statements and information or omitting required statements and information, including the possibility of fine or imprisonment.					
phone, and e-mail address; sign, and date.	Jason Goodwin Name			Director, Environmental, Health, and Safety Title		
	Auburndale Peaker Energy Center, LLC (APEC); Calpine Construction Finance Company, LP (OEC) Owner Company Name					LP (OEC)
<b>)</b>	Igoodwin@calpine.com   Phone   E-mail address   Y / 75 / 10   Date   Phone   Phone					
<i>)</i>						
DEP Form No. 62-210.	900(1 <del>)(</del> a) ~ Form		4		Y:\GDP-10\CALPINI	ETTLVLDOC-041910

Calpine Corporation
Auburndale Peaker Energy Center/Osprey Energy Center

#### SECTION V. CAIR PART.

#### Clean Air Interstate Rule Provisions

#### Clean Air Interstate Rule (CAIR).

Operated by: Calpine Corporation

ORIS Codes: 54658, Auburndale Peaker Energy Center

55412, Osprey Energy Center

The emissions units below are regulated under the Clean Air Interstate Rule.

E.U.	
ID No.	Brief Description
Auburnda	le Peaker Energy Center
006	Nominal 120 MW simple cycle combustion turbine-electrical generator set
Osprey E	nergy Center
007	Nominal 170 MW combined cycle combustion turbine-electrical generator set (CT1)
008	Nominal 170 MW combined cycle combustion turbine-electrical generator set (CT2)

1. <u>Clean Air Interstate Rule Application</u>. The Clean Air Interstate Rule Part Form submitted for this facility is a part of this permit. The owners and operators of these CAIR units as identified in this form must comply with the standard requirements and special provisions set forth in the CAIR Part Form (DEP Form No. 62-210.900(1)(b)) dated March 16, 2008, which is attached at the end of this section. [Chapter 62-213, F.A.C. and Rule 62-210.200, F.A.C.]

## Clean Air Interstate Rule (CAIR) Part

For more information, see instructions and refer to 40 CFR 96.121, 96.122, 96.221, 96.222, 96.321 and 96.322; and Rule 62-296.470, F.A.C.

	This submission is:  New Revised	Renewal	
STEP 1  Identify the source by plant name and ORIS or EIA plant code	Plant Name: Aubumdale Peaker Energy Center (APEC) Osprey Energy Center (OEC)	State: Florida	ORIS or EIA Plant Code: 55833 (APEC) 55412 (OEC

STEP 2

In column "a" enter the unit ID# for every CAIR unit at the CAIR source.

In columns "b," "c," and "d," Indicate to which CAIR program(s) each unit is subject by placing an "X" in the column(s).

For new units, enter the requested information In columns "e" and "f.

а	ь	c	đ	e	f
	Unit will hold nitrogen oxides (NO <sub>X</sub> )	Unit will hold sulfur dloxide (SO <sub>2</sub> )	Unit will hold NO <sub>x</sub> Ozone Season	New Units	New Units
	allowances in accordance with 40 CFR	allowances in accordance with 40 CFR	allowances in accordance with 40 CFR	Expected Commence Commercial	Expected Monitor Certification
Unit ID#	96.106(c)(1)	96.206(c)(1)	96.306(c)(1)	Operation Date	Deadline
6 (APEC)	x	X	x	N/A	N/A_
CT1 (OEC)	x	x	x	N/A	N/A
CT2 (OEC)	х	X	x	N/A	N/A
					<u>.                                    </u>
				·	
•-					
				<del></del>	
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STEP 3

Read the standard requirements.

Auburndale Peaker Energy Center (APEC) Osprey Energy Center (OEC)

Plant Name (from STEP 1)

#### CAIR NO<sub>X</sub> ANNUAL TRADING PROGRAM

#### CAIR Part Requirements.

- The CAIR designated representative of each CAIR NO₂ source and each CAIR NO₂ unit at the source shall:
   Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.122 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
- The owners and operators of each CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CC, and operate the source and the unit in compliance with such CAIR Part.

#### Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall comply with the monitoring, reporting, and recordiscepting requirements of 40 CFR Part 96, Subpart HH, and Rule 62-296.470, F.A.C. (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HH, shall be used to determine compliance by each CAIR NO<sub>x</sub> source with the following CAIR NO<sub>x</sub> Emissions Requirements.

#### NO<sub>x</sub> Emission Requirements.

- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall hold, in the source's compliance account, CAIR NO<sub>x</sub> allowances available for compliance deductions for the control period under 40 CFR 96.154(a) in an amount not less than the tons of total NO<sub>x</sub> emissions for the control period from all CAIR NO<sub>x</sub> units at the source, as determined in accordance with 40 CFR Part 96, Subpart HH.

  (2) A CAIR NO<sub>x</sub> unit shall be subject to the requirements under paragraph (1) of the NO<sub>x</sub> Requirements starting on the later of January 1, 2009, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.170(b)(1) or (2) and for each control period the parties.

- thereafter.

  (3) A CAIR NO<sub>2</sub> allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO<sub>2</sub> Requirements, for a control period in a calendar year before the year for which the CAIR NO<sub>2</sub> allowance was silicated.

  (4) CAIR NO<sub>3</sub> allowances shall be held in, deducted from, or transferred into or among CAIR NO<sub>3</sub> Allowance Tracking System accounts in accordance with 40 CFR Part 95, Subparts FF and GG.

  (5) A CAIR NO<sub>3</sub> allowance is a limited authorization to emit one ton of NO<sub>3</sub> in accordance with the CAIR NO<sub>3</sub> Annual Trading Program. No provision of the CAIR NO<sub>4</sub> Annual Trading Program, the CAIR Part, or an exemption under 40 CFR 95.105 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

  (6) A CAIR NO<sub>3</sub> allowance does not constitute a property right.

  (7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EE, FF, or GG, every allocation, transfer, or deduction of a CAIR NO<sub>3</sub> allowance to or from a CAIR NO<sub>4</sub> unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO<sub>2</sub> unit.

#### Excess Emissions Requirements.

- If a CAIR NO<sub>x</sub> source emits NO<sub>x</sub> during any control period in excess of the CAIR NO<sub>x</sub> emissions limitation, then:
  (1) The owners and operators of the source and each CAIR NO<sub>x</sub> unit at the source shall surrender the CAIR NO<sub>x</sub> allowances required for deduction under 40 CFR 96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Cleen Air Act or applicable state law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AA, the Clean Air Act, and applicable state law.

#### Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.

  (i) The certificate of representation under 40 CFR 96.113 for the CAIR dasignated representative for the source and each CAIR NO<sub>x</sub> unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 95.113 changing the CAIR designated representative.

  (ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HH, or this part, provided that to the extent that 40 CFR Part 96, Subpart HH, or this part, provided that to the extent that 40 CFR Part 96, Subpart HH, or this part, provided that to the extent that 40 CFR Part 96, Subpart HH, or this part, provided that to the extent that 40 CFR Part 96, Subpart HH, or this part, provided that to the extent that 40 CFR Part 96, Subpart HH, or this part, provided that to the extent that 40 CFR Part 96, Subpart HH, or this part, provided that to the extent that 40 CFR Part 96, Subpart HH, or this part, provided that to the extent that 40 CFR Part 96, Subpart HH, or this part, provided that to the extent that 40 CFR Part 96, Subpart HH, or this part, provided that to the extent that 40 CFR Part 96, Subpart HH, or this part, provided that to the extent that 40 CFR Part 96, Subpart HH, or thi

- (iii) Copies or an reports, compliance commission.

  (iv) Copies of all documents used to complete a CAIR Pert form and any other submission under the CAIR NO<sub>x</sub> Annual Trading Program or to demonstrate compliance with the requirements of the CAIR NO<sub>x</sub> Annual Trading Program.

  (2) The CAIR designated representative of a CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall submit the reports required under the CAIR NO<sub>x</sub> Annual Trading Program, including those under 40 CFR Part 98, Subpart HH.

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#### STEP 3 Continued

Auburndale Peaker Energy Center (APEC)
Osprey Energy Center (OEC)

Plant Name (from STEP 1)

#### Liability.

- (1) Each CAIR NO<sub>X</sub> source and each CAIR NO<sub>X</sub> unit shall meet the requirements of the CAIR NO<sub>X</sub> Annual Trading Program.

  (2) Any provision of the CAIR NO<sub>X</sub> Annual Trading Program that applies to a CAIR NO<sub>X</sub> source or the CAIR designated representative of a CAIR.
- NO<sub>X</sub> source shall also apply to the owners and operators of such source and of the CAIR NO<sub>X</sub> units at the source.

  (3) Any provision of the CAIR NO<sub>X</sub> Annual Trading Program that applies to a CAIR NO<sub>X</sub> unit or the CAIR designated representative of a CAIR
- NO<sub>x</sub> unit shall also apply to the owners and operators of such unit.

#### Effect on Other Authorities.

No provision of the CAIR NO<sub>X</sub> Annual Trading Program, a CAIR Part, or an exemption under 40 CFR 96.105 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO<sub>X</sub> source or CAIR NO<sub>X</sub> unit from compliance will any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

#### CAIR SO2 TRADING PROGRAM

#### CAIR Part Requirements,

- (1) The CAIR designated representative of each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shalt
  (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 95.222 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
- (2) The owners and operators of each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall have a CAIR Part included in the Title V operating parmit issued by the DEP under 40 CFR Part 98, Subpart CCC, for the source and operate the source and each CAIR unit in compliance with such CAIR Part.

#### Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR SO<sub>2</sub> source and each SO<sub>2</sub> CAIR unit at the source shall comply with the monitoring, reporting, and recordisepring requirements of 40 CFR Pert 96, Subpart HiHt, and Ruis 62-296,470, F.A.C. (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HiHt, shall be used to determine compliance by each CAIR SO<sub>2</sub> source with the following CAIR SO<sub>2</sub> Emission Requirements.

#### SO<sub>2</sub> Emission Regulrements.

- (1) As of the atlowance transfer deadline for a control period, the owners and operators of each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall hold, in the source's compliance account, a tonnage equivalent in CAIR SO<sub>2</sub> allowances available for compliance deductions for the control period, as determined in accordance with 40 CFR 98.254(a) and (b), not less than the tons of total suffur dioxide emissions for the control period from all CAIR SO<sub>2</sub> units at the source, as determined in accordance with 50 CFR Parl 98, Subpart H1H1.

  (2) A CAIR SO<sub>2</sub> unit shall be subject to the requirements under paragraph (1) of the Sulfur Dioxide Emission Requirements starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.270(b)(1) or (2) and for each control nariod themselfer.
- control period thereafter.

- control period thereafter.

  (3) A CAIR SO<sub>2</sub> allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the SO<sub>2</sub> Emission Requirements, for a control period in a calendar year before the year for which the CAIR SO<sub>2</sub> allowance was allocated.

  (4) CAIR SO<sub>2</sub> allowances shall be held in, deducted from, or transferred into or among CAIR SO<sub>2</sub> Allowance Tracking System accounts in accordance with 40 CFR Pert 95, Subparts FFF and GGG.

  (5) A CAIR SO<sub>2</sub> allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO<sub>2</sub> Trading Program. No provision of the CAIR SO<sub>2</sub> allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO<sub>2</sub> Trading Program. No provision of the CAIR SO<sub>2</sub> allowance in the United States to terminate or limit such authorization.

  (6) A CAIR SO<sub>2</sub> allowance does not constitute a property right.

  (7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FFF or GGG, every allocation, transfer, or deduction of a CAIR SO<sub>2</sub> allowance to or from a CAIR SO<sub>2</sub> allowance account is incorporated automatically in any CAIR Part of the source that includes the CAIR
- os to or from a CAIR SO, unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR

#### Excess Emissions Requirements.

- If a CAIR SO<sub>2</sub> source emits SO<sub>2</sub> during any control period in excess of the CAIR SO<sub>2</sub> emissions limitation, then:
  (1) The owners and operators of the source and each CAIR SO<sub>2</sub> unit at the source shall surrender the CAIR SO<sub>2</sub> efflowances required for deduction under 40 CFR 98.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAA, the Clean Air Act, and applicable state law.

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Effective: 3/16/08

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#### STEP 3, Continued

Auburndale Peaker Energy Center (APEC) Osprev Energy Center (OEC)

Plant Name (from STEP 1)

#### Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the CAIR SO2 source and each CAIR SO2 unit at the source shall keep on site at
- (1) Unless otherwise provided, the owners and operators of the CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Department or the Administrator.
  (I) The cartificate of representation under 40 CFR 96.213 for the CAIR designated representative for the source and each CAIR SO<sub>2</sub> unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.213 changing the CAIR designated representative.
  (ii) All emissions monitoring information, in accordance with 40 CFR Part 86, Subpart HIHL, provided that to the extent that 40 CFR Part 96, Subpart HIHL, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
  (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR SO<sub>2</sub> Trading Program.

- (iii) Copies or all reports, complete a CAIR Part form and any other submission under the CAIR SO<sub>2</sub> Trading Program.

  (iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR SO<sub>2</sub> Trading Program or to demonstrate compliance with the requirements of the CAIR SO<sub>2</sub> Trading Program.

  (2) The CAIR designated representative of a CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall submit the reports required under the CAIR SO<sub>2</sub> Trading Program, including those under 40 CFR Part 89, Subpart HHH.

#### Liability.

- (1) Each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit shall meet the requirements of the CAIR SO<sub>2</sub> Trading Program.

  (2) Any provision of the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR SO<sub>2</sub> source or the CAIR designated representative of a CAIR SO<sub>2</sub> source shall also apply to the owners and operators of such source and of the CAIR SO<sub>2</sub> units at the source.

  (3) Any provision of the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR SO<sub>2</sub> unit or the CAIR designated representative of a CAIR SO<sub>2</sub> unit shall also apply to the owners and operators of such unit.

#### Effect on Other Authorities.

No provision of the CAIR SO<sub>2</sub> Trading Program, a CAIR Part, or an exemption under 40 CFR 96.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR SO<sub>2</sub> source or CAIR SO<sub>2</sub> unit from compliance with any other provision of the epplicable, approved State implementation Plan, a federally enforceable permit, or the Clean Air Act.

#### CAIR NO, OZONE SEASON TRADING PROGRAM

#### CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR NO<sub>X</sub> Ozone Season source and each CAIR NO<sub>X</sub> Ozone Season unit at the source shall:
  - (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 98.322 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and (ii) [Reserved];
- (2) The owners and operators of each CAIR NO<sub>X</sub> Ozone Season source required to have a Title V operating permit or air construction per and each CAIR NO<sub>X</sub> Ozone Season unit required to have a Title V operating permit or six construction permit at the source shall have a CAIR Part included in the Title V operating permit or air construction permit issued by the DEP under 40 CFR Part 98, Subpart CCCC, for the source and operate the source and the unit in compliance with such CAIR Part.

#### Monitoring, Reporting, and Recordkeeping Requirements.

- (1) The owners and operators, and the CAIR designated representative, of each CAIR NO<sub>X</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HHHH, and Rule 62-296.470, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHHH, shall be used to determine npliance by each CAIR NO<sub>x</sub> Ozone Season source with the following CAIR NO<sub>x</sub> Ozone Season Emissions Requirements.

#### NO, Ozone Season Emission Requirements,

- (1) As of the altowance transfer deadline for a control period, the owners and operators of each CAIR NO<sub>X</sub> Ozone Season source and each CAIR NO<sub>X</sub> Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO<sub>X</sub> Ozone Season allowances available for compliance deductions for the control period under 40 CFR 96,354(a) in an amount not less than the lons of total NO<sub>X</sub> emissions for the control period from all CAIR NO<sub>X</sub> Ozone Season units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHHH.

  (2) A CAIR NO<sub>X</sub> Ozone Season unit shall be subject to the requirements under paragraph (1) of the NO, Ozone Season Emission Requirements starting on the later of May 1, 2008 or the deadline for meeting the unit's monitor certification requirements under 40 CFR
- 86.370(h)1,(2), or (3) and for each control period thereafter.

  (3) A CAIR NO<sub>X</sub> Ozone Sesson allowance shafl not be deducted, for compliance with the requirements under paragraph (1) of the NO<sub>X</sub> Ozone Sesson Emission Requirements, for a control period in a calendar year before the year for which the CAIR NO<sub>X</sub> Ozone Sesson allowance was
- allocated.

  (4) CAIR NO<sub>x</sub> Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subperts FFFF and GGGG.

  (5) A CAIR NO<sub>x</sub> Ozone Season allowance is a limited authorization to emit one ton of NO<sub>x</sub> in accordance with the CAIR NO<sub>x</sub> Ozone Season Trading Program. No provision of the CAIR NO<sub>x</sub> Ozone Season Trading Program, the CAIR Part, or an exemption under 40 CFR 96.305 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

  (6) A CAIR NO<sub>x</sub> Ozone Season allowance does not constitute a property right.

  (7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EEEE, FFFF or GGGG, every allocation, transfer, or deduction of a CAIR NO<sub>x</sub> Ozone Season allowance to or from a CAIR NO<sub>x</sub> Ozone Season unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO<sub>x</sub> Ozone Season unit.

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Effective: 3/16/08

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STEP 3. Continued Auburndale Peaker Energy Center (APEC)
Osprey Energy Center (OEC

Plant Name (from STEP 1)

#### Excess Emissions Requirements.

If a CAIR NO<sub>x</sub> Ozone Season source emits NO<sub>x</sub> during any control period in excess of the CAIR NO<sub>x</sub> Ozone Season emissions limitation, then: If a CAIR NO<sub>2</sub> Ozone Season source emits NO<sub>2</sub> during any control period in excess of the CAIR NO<sub>2</sub> Ozone Season emissions limitation, it (1) The owners and operators of the source and each CAIR NO<sub>2</sub> Ozone Season unit at the source shall surmeder the CAIR NO<sub>2</sub> Ozone Season allowances required for deduction under 40 CFR 96.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law, and (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAAA, the Clean Air Act, and applicable state law.

#### Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR NO<sub>2</sub> Oxone Season source and each CAIR NO<sub>2</sub> Ozone Season unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in witing by the DEP or the Administrator.

(i) The certificate of representation under 40 CFR 96.313 for the CAIR designated representative for the source and each CAIR NO<sub>2</sub> Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the cartificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.

(ii) All emissions morbitoring information, in accordance with 40 CFR 96.113 changing the CAIR designated representative.

(iii) All emissions morbitoring information, in accordance with 40 CFR Part 96, Subpart HHHH, provided that to the extent that 40 CFR Part 96, Subpart HHHH, provided stat at payly.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO<sub>2</sub> Ozone Season Tradino Program.

(al) Copies of all reports, Compliance certifications, and currie submissions and all rocords made on require whose the CAIR NO<sub>X</sub> Ozone Season Trading Program.

(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO<sub>X</sub> Ozone Season Trading Program or to demonstrate compliance with the requirements of the CAIR NO<sub>X</sub> Ozone Season Trading Program or to demonstrate compliance with the requirements of the CAIR NO<sub>X</sub> Ozone Season Trading Program or to demonstrate compliance with the reports required under the CAIR NO<sub>X</sub> Ozone Season Trading Program, including those under 40 CFR Part 96, Subpart HHHH.

#### Liability.

(1) Each CAIR NO<sub>X</sub> Ozone Season source and each CAIR NO<sub>X</sub> Ozone Season unit shall meet the requirements of the CAIR NO<sub>X</sub> Ozone

Season Trading Program.

(2) Any provision of the CAIR NO<sub>X</sub> Ozone Season Trading Program that applies to a CAIR NO<sub>X</sub> Ozone Season source or the CAIR designated representative of a CAIR NO<sub>X</sub> Ozone Season source shall also apply to the owners and operators of such source and of the CAIR NO<sub>X</sub> Ozone

Season units at the source.

(3) Any provision of the CAIR NO<sub>X</sub> Ozone Season Trading Program that applies to a CAIR NO<sub>X</sub> Ozone Season unit or the CAIR designated representative of a CAIR NO<sub>X</sub> Ozone Season unit shall also apply to the owners and operators of such unit.

#### Effect on Other Authorities.

No provision of the CAIR NO<sub>X</sub> Ozone Season Trading Program, a CAIR Part, or an examption under 40 CFR 98.305 shall be constitued as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO<sub>X</sub> Ozone Season source or CAIR NO<sub>X</sub> Ozone Season unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally ceable permit, or the Clean Air Act.

#### STEP 4

#### Certification (for designated representative or alternate designated representative only)

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

I am authorized to make this submission on behalf of the owners and operators of the CAIR source or CAIR units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Besed on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am awere that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Title	onmental, Health, and Safety
, LLC (APEC); Calpine Construction	Finance Company, LP (OEC)
jgoodwin@calpine.com E-mail eddress	
	4/20/16 Date
	; LLC (APEC); Calpine Construction

DEP Form No. 62-210.900(1)(b) - Form

Effective: 3/16/08

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#### SECTION VI. APPENDICES.

#### The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.

Appendix I, List of Insignificant Emissions Units and/or Activities.

Appendix NESHAP, Subpart A – General Provisions.

Appendix NESHAP, ZZZZ – National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines.

Appendix NSPS, Subpart A – General Provisions.

Appendix NSPS, Subpart Da - Standards of Performance for Electric Utility Steam Generating Units.

Appendix NSPS, Subpart GG – Standards of Performance for Stationary Gas Turbines.

Appendix RR, Facility-wide Reporting Requirements.

Appendix TR, Facility-wide Testing Requirements.

Appendix TV, Title V General Conditions.

Appendix U, List of Unregulated Emissions Units and/or Activities.

#### REFERENCED ATTACHMENTS.

## The Following Attachments Are Included for Applicant Convenience:

Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996). Table H, Permit History.

# FIGURE 1--SUMMARY REPORT--GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE

[Note: This form is referenced in 40 CFR 60.7, Subpart A-General Provisions	
Pollutant (Circle One): SO <sub>2</sub> NO <sub>X</sub> TRS H <sub>2</sub> S	CO Opacity
Reporting period dates: From	to
Company:	
Emission Limitation:	
Address:	
Monitor Manufacturer:	
Model No.:	
Date of Latest CMS Certification or Audit:	
Process Unit(s) Description:	<u> </u>
Total source operating time in reporting period 1:	
Emission data summary 1	CMS performance summary 1
1. Duration of excess emissions in reporting period due to:  a. Startup/shutdown  b. Control equipment problems  c. Process problems  d. Other known causes  e. Unknown causes  2. Total duration of excess emissions  3. Total duration of excess emissions x (100) / [Total source operating time]  96	1. CMS downtime in reporting period due to:  a. Monitor equipment malfunctions  b. Non-Monitor equipment malfunctions  c. Quality assurance calibration  d. Other known causes  e. Unknown causes  2. Total CMS Downtime  3. [Total CMS Downtime] x (100) / [Total source operating time]   **Total CMS Downtime
	missions is 1 percent or greater of the total operating time or al operating time, both the summary report form and the excess
Note: On a separate page, describe any changes since last que	arter in CMS, process or controls.
I <u>certify</u> that the information contained in this report is true, acc	curate, and complete.
Name:	
Signature:	Date:
Titlo:	

Table H

-	Permit History					
EU No. Description		Permit No.	Issue Date	Expiration Date		
006	Simple Cycle Combustion Turbine	1050221-004-AC	6/26/01	6/26/06		
007	Combustion Turbine	1050334-001-AC	7/5/01	12/31/04		
800	Combustion Turbine	1050334-001-AC				
009	Duct Burner	1050334-001-AC				
010	Duct Burner	1050334-001-AC				
011	Cooling Tower	1050334-001-AC				
All	Initial Title V	1050221-002-AV	12/31/97	12/31/02		
All	Title V Renewal	1050221-007-AV	1/1/03	12/31/07		
All	Title V Revision	1050221-009-AV	5/4/06	12/31/07		
All	Air Construction Permit Mod	1050221-010-AC	3/10/06	3/10/11		
Alİ	Heat Input Modification	1050221-012-AC	2/7/08	2/7/09		
All	Title V Renewal	1050221-013-AV	1/1/08	12/31/12		
All	Title V Revision (heat input, testing)	1050221-014-AV	4/4/08	12/31/12		
All	CAIR Revision	1050221-015-AV	2/3/09	12/31/12		
All	Air Construction Permit Mod	1050334-009-AC				

To:

Jason Goodwin

Cc:

Zhang-Torres: 'Tom Davis': 'Forney.Kathleen@epamail.epa.gov';

Oquendo Ana@epamail.epa.gov; Gibson, Victoria; Cascio, Tom; Holtom, Jonathan, Walker,

Elizabeth (AIR)

Subject:

CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY ENERGY

CENTER: 1050334-008-AV/1050334-009-AC

Attachments:

OspreySignedWrittenNoticeofIntent008AV009AC pdf

#### Dear Sir/ Madam:

Attached is the official Written Notice of Intent to Issue Air 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).

Attention: Tom Cascio

Owner/Company Name: CALPINE CONSTRUCTION FINANCE COMPANY, LP

Facility Name: OSPREY ENERGY CENTER

Project Number: 1050334-008-AV/1050334-009-AC

Permit Status: DRAFT/PROPOSED Permit Activity: INITIAL ISSUANCE

**Facility County: POLK** 

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

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf\_permit\_zip\_files/1050334.008.AV.D\_pdf.zip

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

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf permit zip files/1050334.009.AC.D pdf.zip

"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 <a href="http://www.dep.state.fl.us/air/emission/apds/default.asp">http://www.dep.state.fl.us/air/emission/apds/default.asp</a> ."

Permit 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.

Barbara Friday Bureau of Air Regulation

From:

Microsoft Exchange

To:

Jason Goodwin

Sent:

Wednesday, September 08, 2010 10:47 AM

Subject:

Relayed: CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY

ENERGY CENTER; 1050334-008-AV/1050334-009-AC

# Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:

Jason Goodwin

Subject: CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY ENERGY CENTER; 1050334-008-AV/1050334-009-AC

Sent by Microsoft Exchange Server 2007

From: Sent: Jason Goodwin [Jason.Goodwin@calpine.com] Wednesday, September 08, 2010 11:00 AM

To:

Friday, Barbara

Subject:

RE: CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY ENERGY

CENTER: 1050334-008-AV/1050334-009-AC

Received -thanks.

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

NYSE: CPN

**From:** Friday, Barbara [mailto:Barbara.Friday@dep.state.fl.us]

Sent: Wednesday, September 08, 2010 9:47 AM

To: Jason Goodwin

Cc: Zhang-Torres; Tom Davis; Forney.Kathleen@epamail.epa.gov; Oquendo.Ana@epamail.epa.gov; Gibson, Victoria;

Cascio, Tom; Holtom, Jonathan; Walker, Elizabeth (AIR)

Subject: CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY ENERGY CENTER; 1050334-008-

AV/1050334-009-AC

Dear Sir/ Madam:

Attached is the official **Written Notice of Intent to Issue Air 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).

Attention: Tom Cascio

Owner/Company Name: CALPINE CONSTRUCTION FINANCE COMPANY, LP

Facility Name: OSPREY ENERGY CENTER

Project Number: 1050334-008-AV/1050334-009-AC

Permit Status: DRAFT/PROPOSED Permit Activity: INITIAL ISSUANCE

**Facility County: POLK** 

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

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf permit zip files/1050334.008.AV.D pdf.zip

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

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf permit zip files/1050334.009.AC.D pdf.zip

"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 <a href="http://www.dep.state.fl.us/air/emission/apds/default.asp">http://www.dep.state.fl.us/air/emission/apds/default.asp</a>. "

Permit 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.

Barbara Friday Bureau of Air Regulation Division of Air Resource Management (DARM) (850)921-9524

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole 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. Simply click on this link to the DEP Customer Survey. Thank you in advance for completing the survey.

From:

Microsoft Exchange

To:

Tom Davis

Sent:

Wednesday, September 08, 2010 10:48 AM

Subject:

Relayed: CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY

ENERGY CENTER; 1050334-008-AV/1050334-009-AC

Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:

Tom Davis

Subject: CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY ENERGY CENTER; 1050334-008-AV/1050334-009-AC

Sent by Microsoft Exchange Server 2007

From:

tdavis@ectinc.com

Sent:

Wednesday, September 08, 2010 10:53 AM

To:

Friday, Barbara

Subject:

CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY ENERGY

CENTER; 1050334-008-AV/1050334-009-AC

I will be away from my office on Wednesday September 8th, and will return on Thursday September 9th.

For immediate assistance, please contact Bill Karl at <a href="mailto:bkarl@ectinc.com">bkarl@ectinc.com</a> and (352) 248-3313 or John Shrock at <a href="mailto:jshrock@ectinc.com">jshrock@ectinc.com</a> and (352) 248-3346.

Thanks.

From:

Tom Davis [tdavis@ectinc.com]

Sent:

Wednesday, September 08, 2010 5:31 PM

To:

Friday, Barbara

Subject:

RE: CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY ENERGY

CENTER; 1050334-008-AV/1050334-009-AC

Dear Ms. Friday,

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

Thanks.

**From:** Friday, Barbara [mailto:Barbara.Friday@dep.state.fl.us]

Sent: Wednesday, September 08, 2010 10:47 AM

To: Jason Goodwin

Cc: Zhang-Torres; Tom Davis; Forney.Kathleen@epamail.epa.gov; Oquendo.Ana@epamail.epa.gov; Gibson, Victoria;

Cascio, Tom; Holtom, Jonathan; Walker, Elizabeth (AIR)

Subject: CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY ENERGY CENTER; 1050334-008-

AV/1050334-009-AC

Dear Sir/ Madam:

Attached is the official **Written Notice of Intent to Issue Air 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).

Attention: Tom Cascio

Owner/Company Name: CALPINE CONSTRUCTION FINANCE COMPANY, LP

Facility Name: OSPREY ENERGY CENTER

Project Number: 1050334-008-AV/1050334-009-AC

Permit Status: DRAFT/PROPOSED Permit Activity: INITIAL ISSUANCE

**Facility County: POLK** 

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

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf permit zip files/1050334.008.AV.D pdf.zip

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

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf permit zip files/1050334.009.AC.D pdf.zip

"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 . "

Permit 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.

Barbara Friday Bureau of Air Regulation Division of Air Resource Management (DARM) (850)921-9524

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole 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. Simply click on this link to the DEP Customer Survey. Thank you in advance for completing the survey.

From:

Mail Delivery System [MAILER-DAEMON@mseive01.rtp.epa.gov] Forney.Kathleen@epamail.epa.gov; Oquendo.Ana@epamail.epa.gov

To: Sent:

Wednesday, September 08, 2010 10:48 AM

Subject:

Relayed: CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY

ENERGY CENTER; 1050334-008-AV/1050334-009-AC

## Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:

Forney.Kathleen@epamail.epa.gov

Oquendo.Ana@epamail.epa.gov

Subject: CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY ENERGY CENTER; 1050334-008-AV/1050334-009-AC

From:

Microsoft Exchange

To:

Cascio, Tom; Zhang-Torres; Holtom, Jonathan; Gibson, Victoria

Sent:

Wednesday, September 08, 2010 10:47 AM

Subject:

Delivered: CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY

ENERGY CENTER; 1050334-008-AV/1050334-009-AC

## Your message has been delivered to the following recipients:

Cascio, Tom

**Zhanq-Torres** 

Holtom, Jonathan

Gibson, Victoria

Subject: CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY ENERGY CENTER; 1050334-008-AV/1050334-009-AC

Sent by Microsoft Exchange Server 2007

From:

Cascio, Tom

To:

Friday, Barbara

Sent:

Subject:

Wednesday, September 08, 2010 10:50 AM
Read: CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY ENERGY

CENTER; 1050334-008-AV/1050334-009-AC

Your message was read on Wednesday, September 08, 2010 10:49:56 AM (GMT-05:00) Eastern Time (US & Canada).

From:

Zhang-Torres

To: Sent: Friday, Barbara

Subject:

Wednesday, September 08, 2010 12:49 PM
Read: CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY ENERGY

CENTER; 1050334-008-AV/1050334-009-AC

Your message was read on Wednesday, September 08, 2010 12:48:36 PM (GMT-05:00) Eastern Time (US & Canada).

From:

Holtom, Jonathan Friday, Barbara

To: Sent:

Wednesday, September 08, 2010 10:54 AM

Subject:

Read: CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY ENERGY

CENTER; 1050334-008-AV/1050334-009-AC

Your message was read on Wednesday, September 08, 2010 10:54:11 AM (GMT-05:00) Eastern Time (US & Canada).

From: To:

Gibson, Victoria

Sent:

Subject:

Friday, Barbara
Tuesday, September 14, 2010 2:04 PM
Read: CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY ENERGY

CENTER; 1050334-008-AV/1050334-009-AC

Your message was read on Tuesday, September 14, 2010 2:03:50 PM (GMT-05:00) Eastern Time (US & Canada).

From:

Microsoft Exchange

To:

Walker, Elizabeth (AIR)

Sent:

Wednesday, September 08, 2010 10:47 AM

Subject:

Delivered: CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY

ENERGY CENTER; 1050334-008-AV/1050334-009-AC

## Your message has been delivered to the following recipients:

Walker, Elizabeth (AIR)

Subject: CALPINE CORPORATION-AUBURNDALE ENERGY CENTER - OSPREY ENERGY CENTER; 1050334-008-AV/1050334-009-AC

Sent by Microsoft Exchange Server 2007