

Friday, Barbara

From: Exchange Administrator
Sent: Thursday, December 22, 2005 10:46 AM
To: Friday, Barbara
Subject: Delivery Status Notification (Relay)

Attachments: ATT60062.txt; DRAFT Title V Permit Revision No.: 1050221-009-AV/1050221-010-AC -
Auburndale Power Partners, L.P.



ATT60062.txt (284 B) DRAFT Title V
Permit Revision ...

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

tdavis@ectinc.com

Friday, Barbara

From: System Administrator [postmaster@calpine.com]
Sent: Thursday, December 22, 2005 10:46 AM
To: Friday, Barbara
Subject: Delivered: DRAFT Title V Permit Revision No.: 1050221-009-AV/1050221-010-AC -
Auburndale Power Partners, L.P.

Attachments: DRAFT Title V Permit Revision No.: 1050221-009-AV/1050221-010-AC - Auburndale Power
Partners, L.P.



DRAFT Title V
Permit Revision ...

<<DRAFT Title V Permit Revision No.: 1050221-009-AV/1050221-010-AC -
Auburndale Power Partners, L.P.>> Your message

To: Nasca, Mara; tdavis@ectinc.com; Heidi Whidden
Cc: Bull, Robert
Subject: DRAFT Title V Permit Revision No.: 1050221-009-AV/1050221-010-AC
- Auburndale Power Partners, L.P.
Sent: Thu, 22 Dec 2005 07:43:20 -0800

was delivered to the following recipient(s):

Heidi Whidden on Thu, 22 Dec 2005 07:39:10 -0800
MSEXCH:MSEExchangeMTA:San-Jose:FOLEMAIL5

Friday, Barbara

From: Exchange Administrator
Sent: Thursday, December 22, 2005 10:45 AM
To: Friday, Barbara
Subject: Delivery Status Notification (Relay)

Attachments: ATT51447.txt; DRAFT Title V Permit Revision No.: 1050221-009-AV/1050221-010-AC -
Auburndale Power Partners, L.P.



ATT51447.txt (287 B) DRAFT Title V
Permit Revision ...

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

HWhidden@calpine.com

Friday, Barbara

To: Nasca, Mara; 'tdavis@ectinc.com'; Heidi Whidden
Cc: Bull, Robert
Subject: DRAFT Title V Permit Revision No.: 1050221-009-AV/1050221-010-AC - Auburndale Power Partners, L.P.

Attachments: 1050221.009.AV.D[1].zip

Attached for your records is a zip file for the subject DRAFT Title V Revision Permit.

If I may be of further assistance, please feel free to contact me.


Barbara J. Friday
Planner II
Bureau of Air Regulation
(850)921-9524
Barbara.Friday@dep.state.fl.us


12/22/2005

Memorandum

Florida Department of Environmental Protection

TO: Trina Vielhauer, Chief
Bureau of Air Regulation

THROUGH: Jeff Koerner, Manager 
Air Permitting North Program

FROM: Bobby Bull, Engineering Specialist II 
Air Permitting North Program

DATE: December 16, 2005

SUBJECT: Draft Air Construction Permit Modification No. 1050221-010-AC
Draft Permit Revision No. 1050221-009-AV
Calpine Corporation- Auburndale Energy Complex

Attached for your review are the following items:

- Intent to Issue Permit and Public Notice Package for combined AC/AV projects;
- Combined Technical Evaluation and Preliminary Determination and Statement of Basis;
- Draft Air Construction Permit Revision;
- Draft Title V Air Permit Revision; and
- PE Certification

This action revises several specific condition of the original air construction permit for Emissions Units at the Plant, which is located at Address. The Technical Evaluation and Preliminary Determination provides a detailed description of the applicant's request and the Department's review. The P.E. certification briefly summarizes the proposed changes. Day #90 is December 22, 2005. I recommend your approval of the attached Draft Permits for this project.

Attachments

P.E. CERTIFICATION STATEMENT

PERMITTEE

Calpine Corporation
Auburndale Energy Complex
2701 North Rocky Point Road, Suit 200
Tampa FL, 33823

Draft Air Permit No. 1050221-009-AV
Permit Revision to 1050221-007-AV
Polk County, Florida

PROJECT DESCRIPTION

Calpine requested several miscellaneous changes to their existing Title V permit conditions, which required revisions to the following underlying air construction permits:

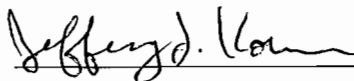
Air Permit No. PSD-FL-185 (EU-001, a nominal 156 MW combined cycle gas turbine with an unfired heat recovery steam generator);

Air Permit No. 1050221-004-AC (EU-006, a nominal 120 MW simple cycle gas turbine); and

Air Permit No. PSD-FL-287 (EU-007 and EU-008, newly constructed 170 MW combined cycle combustion turbines with duct burners powering a common 200 MW steam-electrical generator)

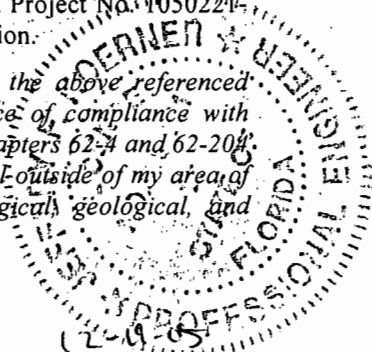
The requested changes were primarily clarifications to monitoring and record keeping provisions, corrections, and updated requirements pursuant to recent revisions in NSPS Subpart GG. There were no changes to any emissions standards and the project will not increase any emissions. Therefore, a minor air permit revision with a 14-day notice and comment period is appropriate. This project will be simultaneously noticed with Project No. 1050221-010-AC to incorporate the modified conditions authorized by the air construction permit revision.

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



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

(Date)





Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

December 22, 2005

CERTIFIED MAIL - Return Receipt Requested

Benjamin M. H. Borsch, P.E.
Manager- Safety, Health, and Environment
Calpine Corporation
2701 North Rocky Point Drive, Suite 1200
Tampa, FL, 33607

Re: Title V Air Operation Permit Revision
DRAFT Permit Project No.: 1050221-009-AV
Revision to Title V Air Operation Permit No.: 1050221-007-AV
DRAFT Air Construction Permit Modification No.: 1050221-010-AC
Auburndale Energy Complex

Dear Mr. Borsch:

This is a revised copy of the Draft Package issued to Calpine Corporation on December 15, 2004. One copy of the Technical Evaluation and Preliminary Determination, the combined Public Notice, the Draft air construction permit modification (letter), and the DRAFT Title V air operation permit revision for the Auburndale Energy Complex located at 1501 and 1651 Derby Avenue, Auburndale, Polk County, is enclosed. The permitting authority's "INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION" and the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION" are also included.

An electronic version of the DRAFT Title V Air Operation Permit Revision has been posted on the Division of Air Resource Management's world wide web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review. The web site address is:

["http://www.dep.state.fl.us/air/permitting/airpermits/AirSearch_ltd.asp"](http://www.dep.state.fl.us/air/permitting/airpermits/AirSearch_ltd.asp)

The "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION" must be published as soon as possible. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Jeffery F. Koerner, P.E., at the above letterhead address. If you have any other questions, please contact Bobby Bull at 850/921-9585.

Sincerely,

Trina L. Vielhauer
Chief

Bureau of Air Regulation

TLV/JFK/rfb

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

SENDER: COMPLETE THIS SECTION

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

1. Article Addressed to:
Benjamin M. H. Borsch, P.E.
Manager - Safety, Health, and Environment
Calpine Corporaiton
2701 North ROCKY Point Drive, Suite 1200
Tampa, Florida 33607

2. Article Number
(Transfer from service label)

7005 1160 0004 3034 3731

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Byron Fisher*

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

12-27

D. Is delivery address different from item 1? ☐ Yes

If YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail ☐ Express Mail

☐ Registered ☐ Return Receipt for Merchandise

☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

7005 1160 0004 3034 3731

U.S. Postal Service™
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For delivery information visit our website at www.usps.com

Benjamin M. H. Borsch, P.E., Manager

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

Postmark
Here

Sent To
Benjamin M. H. Borsch, P.E., - Manager
Street, Apt. No.,
or PO Box No. 2701 North Rocky Point Dr., Suite 1200
City, State, ZIP+4
Tampa, Florida 33607

PS Form 3800, June 2002

See Reverse for Instructions

In the Matter of an
Application for Permits by:

Calpine Corporation
Auburndale Energy Complex
2701 North Rocky Point Drive, Suite 1200
Tampa, FL, 33607

DRAFT Title V Air Operation Permit Revision Project
No. 1050221-009-AV
Draft Air Construction Permit Modification No. 1050221-010-AC
Auburndale Energy Complex
Polk County

**WRITTEN NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR
OPERATION PERMIT REVISION**

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue an air construction permit revision (AC) and a Title V Air Operation Permit revision (copies of the draft permits attached) for the Title V source detailed in the application specified above, for the reasons stated below.

The applicant, Calpine Corporation, applied on September 17, 2004, to the permitting authority for a Permit Revision for the Auburndale Energy Complex, 1501 and 1651 Derby Avenue, Auburndale, Polk County. On May 27, 2005, the applicant submitted an air construction application for permit modifications to three air construction permits.

The Air Construction Permit 1050221-010-AC is being issued for the modification of specific conditions to permits PSD-FL-185, 1050221-004-AC, and PSD-FL-287.

The Permit revision is being issued to allow continued commercial operation of the facility, as authorized by the initial Permit, No. 1050221-002-AV, and incorporate the terms of Air Construction Permits 1050221-010-AC, 1050334-006-AC and 1050334-007-AC.

The permitting authority has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-212, and 62-213. This source is not exempt from construction and Title V permitting procedures. The permitting authority has determined that an AC and a Permit revision are required to commence or continue operations at the described facility.

The permitting authority intends to issue the AC and the Permit revision based on the belief that reasonable assurances have been provided to indicate that the AC activity and operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.087, F.S., and Rules 62-110.106 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION." The 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. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the permitting authority at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax: 850/921-9533), within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permits pursuant to Rule 62-110.106, F.A.C.

The permitting authority will issue the AC and the PROPOSED Permit and subsequent FINAL Permit, in accordance with the conditions of the attached Draft AC and the DRAFT Permit, unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed AC issuance action for a period of 14 (fourteen) days from the date of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this Draft AC, the permitting authority shall issue a Revised Draft AC and require, if applicable, another Public Notice.

The Permitting Authority will accept written comments concerning the DRAFT Permit for a period of thirty (30) days from the date of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION." Written comments must be post-marked and all facsimile comments must be received by the close of business (5:00 pm), on or before the end of this 30-day period, by the Permitting Authority at the above address or facsimile. 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 on the Department's official web site for notices at <http://tlhora6.dep.state.fl.us/onw> and in a newspaper of general circulation in the area affected by the permitting action. For additional information, contact the Permitting Authority at the above address or phone number. If written comments or comments received at a public meeting result in a significant change to the DRAFT Permit, the Permitting Authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

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 (received) 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 permit revision applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;
- (c) A statement of how and when each petitioner received notice of the agency action or proposed action;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief;
- (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and,
- (g) A statement of the relief sought by the petitioner, stating precisely the action 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.

Calpine Corporation
Auburndale Energy Complex
DRAFT Title V Air Operation Permit Project No. 1050221-009-AV
Draft Air Construction Permit Project No. 1050221-010-AC
Page 3 of 5

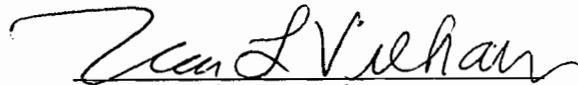
Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such 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 will not be available in this proceeding.

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 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this 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>.

Executed in Tallahassee, Florida.

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**



Trina L. Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION (including the Combined PUBLIC NOTICE, Draft AC and DRAFT Permit) and all copies were sent by certified mail before the close of business on 12/22/05 to the person(s) listed:

Benjamin M. H. Borsch, P.E., Manager- Safety, Health, and Environment, Calpine Corporation, 2701 North Rocky Point Drive, Suite 1200, Tampa, FL, 33607

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION (including the Combined PUBLIC NOTICE, Draft AC and DRAFT Permit) were sent by U.S. mail on the same date to the person(s) listed:

**Heidi Whidden, Calpine Corporation
Thomas W. Davis, P.E., Environmental Consulting and Technology, Inc.**

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION (including the Draft AC and DRAFT Permit packages) were sent by INTERNET E-mail on the same date to the person(s) listed:

**Mara Nasca, FDEP- SWD
U.S. EPA, Region 4**

Clerk Stamp

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

Paula J. Sunday 12/22/05
(Clerk) (Date)

**PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V
AIR OPERATION PERMIT REVISION**

Permitting Authority
Department of Environmental Protection

Draft Title V Major Source Air Operation Permit No. 1050221-009-AV
DRAFT Air Construction Permit No. 1050221-010-AC
Calpine Corporation- Auburndale Energy Complex
Polk County

Applicant: The applicant for this project is Calpine Construction Finance Company, LP, Calpine Corporation, 2701 North Rocky Point Drive, Suite 1200, Tampa, FL, 33607. The applicant's responsible official is Mr. Benjamin M. H. Borsch, P.E., Manager- Safety, Health and Environment.

Facility Location: The applicant owns the Osprey Energy Center and is operated by the Auburndale Energy Complex, which is located at 1501 and 1651 Derby Avenue, in Auburndale, Polk County Florida. The Auburndale Energy Complex consists of four collocated combustion turbines along with ancillary and supporting equipment and facilities. Calpine Operating Services Company, Inc. operates all of the units at the facility; however, there are three different owners for the combustion turbines. EU 001 is owned by Auburndale Power Partners, L.P. EU 006 is owned by Auburndale Peaker Energy Center, LLC (APEC). EUs 007 and 008 are the newly constructed units, and are owned by Calpine Construction Finance Company, L.P.

Project: On September 17, 2004, the applicant submitted an application for a Title V Air Operation Permit (Permit) Revision. On May 27, 2005, the applicant applied for an air construction permit modification (AC). Details of the project are provided in the application and the enclosed "Statement of Basis", for the Permit Revision, and the Preliminary Determination, for the AC.

The Air Construction Permit 1050221-010-AC is being issued to revise Air Construction Permit Nos. PSD-FL-185, 1050221-004-AC, and PSD-FL-287.

The Title V permit revision is being issued to allow commercial operation of the facility, as authorized by the initial Permit, No. 1050221-002-AV, and incorporate the terms of Air Construction Permits 1050221-010-AC, 1050334-006-AC, 1050334-007-AC.

The applicant will incorporate the newly constructed Osprey Energy Center (Air Construction Project 1050334-001-AC) into the current Auburndale Energy Complex permit (Facility ID No. 1050221). The Osprey Energy Center was initially constructed with the intention of being a stand alone facility. However, it is contiguous with the Auburndale Energy Complex, and will be incorporated in the Auburndale Cogeneration Facility permit, Facility ID No. 1050221. The Permit revision is being issued to allow continued commercial operation of the facility, as authorized by the initial Permit, No. 1050221-002-AV, and incorporate the terms of Air Construction Permits 1050334-001-AC. All units will operate under Facility ID No. 1050221. The emissions units (EU 007 through EU 011) have been built and the initial performance test has been conducted and compliance demonstrated.

Permitting Authority: Applications for Title V air operation permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, 62-212, and 62-213 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 operate the facility. The Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination regarding this project. The Bureau of Air Regulation's physical address is: 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301. The Permitting Authority's mailing address is: Division of Air Resource Management, MS 5505, 2600 Blair Stone Road, Tallahassee, FL 32399-2400. The Permitting Authority's telephone number is 850/488-0114 and facsimile 850/921-9533.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the DRAFT Permit, the Statement of Basis, the TEPD, 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 Permit and file electronic comments

Public Notice to be Published in the Newspaper

**PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V
AIR OPERATION PERMIT REVISION**

by visiting the following website: <http://www.dep.state.fl.us/air/eproducts/ards/>. A copy of the complete project file is also available at the Southwest District at 3804 Coconut Palm Drive, Tampa, FL, 33619-1352 (Telephone: 813/744-6100).

Notice of Intent to Issue A Permit: The Permitting Authority gives notice of its intent to issue an AC and a permit revision to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the facility 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, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C. The Permitting Authority will issue an AC and the PROPOSED Permit and subsequent FINAL Permit in accordance with the conditions of the DRAFT AC and DRAFT 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 proposed AC issuance action for a period of 14 (fourteen) days from the date of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this Draft AC, the permitting authority shall issue a Revised Draft AC and require, if applicable, another Public Notice.

The Permitting Authority will accept written comments concerning the DRAFT Permit for a period of thirty (30) days from the date of publication of this "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION." Written comments must be post-marked and all e-mail or facsimile comments must be received by the close of business (5 pm) on or before the end of this 30-day period by the Permitting Authority at the above address, email or facsimile. 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 on the Department's official web site for notices at <http://tlhora6.dep.state.fl.us/onw> and in a newspaper of general circulation in the area affected by the permitting action. For additional information, contact the Permitting Authority at the above address or phone number. If written comments or comments received at a public meeting result in a significant change to the DRAFT Permit, the Permitting Authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

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

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner; the name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial rights will be affected by the agency determination; (c) A statement of how and when the petitioner

**PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V
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received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Public Notice of intent. 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.

Objections: In addition to the above right to petition, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within sixty (60) days of the expiration of the Administrator's 45 (forty-five) 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 thirty (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
&
PRELIMINARY DETERMINATION**

PROJECT

Draft Air Construction Permit No. 1050221-010-AC
PSD Permit Modification

COUNTY

Polk

APPLICANT

Calpine Corporation
Auburndale Energy Complex
ARMS Facility ID No. 1050221

**PERMITTING
AUTHORITY**

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



December 22, 2005

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1. GENERAL PROJECT INFORMATION

Applicant Name and Address

Calpine Corporation
Auburndale Energy Complex
2701 North Rocky Point Road, Suit 200
Tampa Fl, 33823

Authorized Representative: Mr. Benjamin M. H. Borsch, Manager- Safety, Health, and Environment

Processing Schedule

5/27/05 Received the application for a minor source air pollution construction permit.

6/24/05 Department requested additional information.

9/23/05 Department received additional information; application complete.

Facility Description and Location

The facility is an electric power generating plant (SIC No. 4911), which is located at 1501 and 1651 Derby Avenue in Auburndale, Polk County, Florida. The UTM Coordinates are: Zone 17, 420.8 km East and 3103.3 km North (Latitude: 28° 33' 15" North and Longitude: 81° 48' 21" West). This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to a National Ambient Air Quality Standard (NAAQS).

Regulatory Categories

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

Title IV: The plant is subject to the acid rain provisions of the Clean Air Act.

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

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

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

Project Description

The Auburndale Energy Complex consists of four collocated combustion turbines along with ancillary and supporting equipment and facilities. Auburndale Operating Services Company, Inc. operates all of the units at the facility; however, there are three different owners for the combustion turbines.

- EU 001 is owned by Auburndale Power Partners, L.P. and is located at the Auburndale Energy Complex. The unit is a nominal 156 MW combined cycle gas turbine with an unfired heat recovery steam generator. It is a cogeneration unit that also generates steam for use by two adjacent manufacturing facilities.
- EU 006 is owned by Auburndale Peaker Energy Center, LLC (APEC) and is located at the Auburndale Energy Complex. The unit is a nominal 120 MW simple cycle gas turbine.
- EUs 007 and 008 are the newly constructed units, which are owned by Calpine Construction Finance Company, L.P. and located at the Osprey Energy Center. Each unit is a nominal 170 MW gas-fired combustion turbines with a gas-fired heat recovery steam generator (HRSG with duct burners). Steam from each HRSG powers one common steam-electrical generator with a nominal 200 MW capacity.

Also located at this facility are two distillate fuel oil storage tanks, one cooling tower, and miscellaneous unregulated/insignificant emissions units and/or activities.

On September 17, 2004, Calpine applied for a Title V Air Operation Permit Revision for the Auburndale Energy Complex. The purpose of the revision is to incorporate the newly constructed Osprey Energy Center (Permit

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

No. 1050334-001-AC) into the current Title V air operation permit for the Auburndale Energy Complex permit. The Osprey Energy Center was initially constructed with the intention of being a stand alone facility. However, it is contiguous with the Auburndale Energy Complex and will be incorporated in the existing Title V permit for that facility. Thereafter, all units will be consolidated into a single "facility" in the Department's database (ARMS Facility ID No. 1050221). The emissions units (EU 007 through EU 011) have been built and the initial performance test has been conducted and compliance demonstrated. The Draft Permit revision will allow commercial operation of the entire facility.

On December 15, 2004, the Department issued a Title V Draft Permit package to Calpine to incorporate the Osprey Energy Center into the existing Title V permit for the Auburndale Energy Complex. Calpine published the Public Notice in the Ledger on December 28, 2004. Numerous comments were received from Calpine on the Draft Permit. The comments included requests to modify existing Title V conditions as well as the underlying air construction permit conditions. The Department requested that Calpine submit an application for an air construction permit to consider these changes. On May 27, 2005, the Department received the application (Project No. 1050221-010-AC) from Calpine.

The following report discusses the applicant's request and the Department's response. This project is not subject to PSD review. All construction associated with projects PSD-FL-185, 1050221-004-AC, and PSD-FL-287 has been completed. The emissions limitations for all existing emissions units will remain unchanged with this construction permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions.

3. PROJECT REVIEW

Permit No. PSD-FL-185 (EU-001)

1. Throughout: Throughout the permit, the agency is referred to the "DER". Due to the departmental change, the agency may choose to update these references to "DEP".

Response: The Department will not revise the entire PSD permit to update the Department's abbreviated name; however, "DEP" will be reflected throughout the revised Title V permit.

2. Throughout: Throughout the permit, F.A.C. Rule 17 is referenced. Due to the rule reorganization, the agency may choose to update to the appropriate Chapter 62 regulations.

Response: The Department will not revise the entire PSD permit to update the Rule Citations; however, the updated rule citations will be reflected throughout the revised Title V permit.

3. Page 3 of 10, General Condition 8: This condition requires the facility to immediately provide the Department with detailed information in the event of a "non-compliance" event. The Title V Permit (A.39) requires immediate notification per Rule 62-4.130, F.A.C. and a written report submitted with the quarterly report if requested by the Department. The APEC Construction Permit (Page 5 of 13, Condition 7) and OEC PSD Permit (Page 7 of 13, Condition 12) specifically states notification should occur as soon as possible, but at least within one working day, excluding weekends and holidays. To assist in standard reporting procedures for the site, Calpine requests the conditions in all three permits be replaced with the following language:

"If temporarily not able to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind, or other cause, the permittee shall notify the Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problems; steps being taken to correct the problem and prevent future reoccurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. A written report shall be provided in the quarterly report, as requested by the Department."

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Response: The Department believes the language in the APEC and OEC permits accurately reflect the Department's intention, and language will not be changed in these two permits. The Department will revise the language in the APP permit to reflect the language in the APEC and OEC permits. Specific Condition A.39. in the Title V permit references conditions applicable to 40 CFR 60.7 and is not relevant to the changes being requested by Calpine.

4. New Condition-On February 6, 2002 a new condition authorized the installation of a wet compression system through a letter modification (1050221-005-AC). Calpine requests this letter modification be directly incorporated into the modified PSD Permit through the addition of a condition that reads as follows:

"Wet Compression System

A wet compression system may be installed on Unit 1. Operation of the wet compression system is approved for use on Unit 1 during any periods at which the ambient temperature is above 60 degrees F. Use of the wet compression system is limited to periods during the firing of natural gas only."

Response: This condition has already been modified by a previous air construction permit revision and incorporated into the Title V permit. No changes are necessary.

5. Page 6 of 10, Condition 8: This condition requires sulfuric acid mist (SAM) and volatile organic compounds (VOC) to be tested annually. However, the current Title V does not require these tests to be completed. Calpine requests these requirements be removed.

Response: Annual testing requirements for both SAM and VOC were previously removed in revised Permit No. PSD-FL-185(B); however, the permit required testing prior to permit renewal (every five years). Permit Project No. 1050221-008-AC already modified Permit PSD-FL-185 to delete the SAM requirements. Therefore, no changes are necessary to Permit No. PSD-FL-185. However, the Title V permit will be revised (Condition A.25.) to clarify that VOC testing is only required prior to permit renewal for this unit.

6. Page 6 of 10, Condition 8: This condition requires testing to be conducted while operating at 95-100% of the maximum heat rate input rate. However, the current Title V requires testing be completed between 90-100% of the maximum heat rate input rate (Condition A.29). Calpine requests the revision of the PSD permit to be consistent with the Title V requirements.

Response: The permit will be revised to reflect the Department's current regulatory requirement in Rule 62-297.310(2), F.A.C., which requires testing between 90-100% capacity.

7. Page 6 of 10, Condition 8: This condition requires Nitrogen Oxides to be tested via Method 20. However, Subpart GG has been modified to allow Acid Rain CEMS to follow the quality assurance methods of Part 75. Part 75 requires the use of Method 7E for completion of NOx RATAs. Calpine requests that both Methods 20 and 7E be listed in the permit.

Response: The permit will be revised to include the current requirements of NSPS Subpart GG, which allows both Methods 7E and 20.

8. Page 7 of 10, Condition 14: This condition requires at least a 30-day notification prior to compliance testing. However, the current Title V requires a 15-day notice (Condition A.33). Calpine requests this requirement be updated to read:

"An initial compliance test notification shall be provided at least 30 days prior to testing. An annual test notification shall be provided at least 15 days prior to testing."

Response: Initial testing and notification has been completed. The current Title V permit properly reflects a 15-day notification for annual testing. No changes are necessary.

9. Page 8 of 10, Condition 16: This condition requires the continuous emission monitor to comply with 40 CFR 60, Appendix B, PS 2. In July 2004 the EPA revised 40 CFR Part 60 Subpart GG to more closely match the requirements of 40 CFR Part 75, the rule revision allows continuous monitors regulated by Part

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75 to adhere to the Part 75 quality assurance procedures in place of Appendix B. Calpine requests the above-mentioned language be changed to:

"The continuous emissions monitor must comply with the quality assurance requirements of 40 CFR Part 75."

Response: The permit will be revised to reflect the applicable requirements of 40 CFR 60.334.

10. Page 8 of 10, Condition 17: This condition requires the continuous monitoring of the steam to fuel injection ratio. The revisions to Subpart GG allow facilities to use a NOx CEMS in lieu of monitoring the water-to-fuel ratio. Calpine suggests removing this requirement, and relying on the requirements of Condition 16 for compliance.

Response: The Department agrees that the CEMS is the primary compliance method, but will continue to require Calpine to continuously monitor and record the water-to-fuel ratio as a backup method for ensuring compliance when the NOx CEMS is unavailable. The condition will be revised accordingly to reflect the changes to Subpart GG, and Title V conditions A.15., A.20., and A.35. will be revised to reflect the changes.

11. Page 8 of 10, Condition 18: This condition requires the sulfur content, nitrogen content and the lower heating value (LHV) of the fuel being fired be based on a 12-month rolling average from the fuel delivery receipts. Per EPA guidance for custom fuel monitoring plans and the Subpart GG modification, the owner may: (1) Cease to monitor nitrogen content of the fuel if a NOx CEMS is installed; (2) Monitor the natural gas sulfur content following the sampling requirements of section 2.3.1.4 or 2.3.2.4 of Appendix D to Part 75 (at least one sample shall be collected annually); and (3) Review and retain a fuel oil sulfur analysis for each delivery of fuel oil. No review of the lower heating value is required in Part 60. Calpine requests this language be changed to:

"Monitoring of fuel shall be consistent with the requirements of 40 CFR Part 60 Subpart GG."

Response: The Department agrees that fuel nitrogen monitoring is no longer necessary with NOx compliance demonstrated by CEMS. The fuel nitrogen monitoring requirement was removed in air construction permit 1050221-003-AC. The lower fuel heating value is necessary to determine the heat input rate. The PSD permit has already been revised with this construction permit, and Title V permit, specific condition A.16. will be revised to remove the requirement to monitor fuel nitrogen.

12. Page 9 of 10, Condition 24: This condition requires the use of the 1991 version of the quarterly excess emission reports of 40 CFR 60.7 and 60.334. Calpine requests the 1991 specification be removed from this requirement.

Response: The permit condition will be revised to reflect the most current version of the rule.

13. Page 9 of 10, Condition 27: This condition requires the annual submittal of an Annual Operating Report. This condition also includes the data that shall be included in the report. Since this permit was issued, the language specifying these requirements has changed. The APEC and OEC permits have appropriate examples. Calpine requests this language be changed to:

"Pursuant to Rule 62-210.370(2), F.A.C., Annual Operation Reports, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. Annual operating report shall be sent to the DEP's Southwest District Office by March 1st of each year."

Response: Condition 27 specifically requires the permittee to report fuel sulfur content, fuel nitrogen content, fuel lower heating value, fuel usage, hours of operation, and air emissions limits. Rule 62-210.370(2), F.A.C. currently requires the reporting of fuel sulfur content, fuel heat content, fuel usage, and hours of operation. As previously discussed, fuel nitrogen monitoring will no longer be required. Emissions limits are specified in the permit, so reporting emissions limits is unnecessary. The condition will be revised to read:

Annual Operating Report: Pursuant to Rule 62-210.370(2), F.A.C., the permittee shall submit an annual

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report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year.

Air Construction Permit 1050221-004-AC (EU-006)

1. Pages 1 and 2 of 13: The nominal load of the Peaker (EU-006) is listed as 104 MW. However, this was a typographical error made during the issuance of the PSD Permit and was never corrected. Calpine requests this value be updated to 120 MW. Calpine believes that this does not represent a change in the permit due to this change not increasing the permitted capacity listed in condition Page 4 of 13, Condition 3.

Response: The current *maximum load* for the Peaker is 135 MW which is Specific Condition 2 of this permit. In the facility description, the "104 MW" was intended to describe the nominal load and is not an applicable requirement. The Department agrees to revise the facility description to reflect the nominal rating of 120 MW on page 2, facility description. The change is a correction and will not result in any increase in production rate. The description on the placard page will also be corrected.

2. Page 5 of 13, Condition 6: On April 29, 2002 this condition was modified to authorize the installation of a wet compression system through a letter modification. Calpine requests this letter modification be directly incorporated into the modified PSD Permit.

Response: This condition has been incorporated into the Title V permit. No changes are necessary.

3. Page 6 of 13, Condition 14: The equivalent annual NOx limit of 9 ppmvd corrected to 15% O₂ should be based on a 12-month rolling *average* (not total) and natural gas firing. See Item #9 regarding the APEC permit (below) concerning Page 10 of 13, Condition 31 Paragraph 4 for additional discussion.

Response: The condition will be revised to reflect a 12-month rolling "average" instead of "total" for the concentration-based emissions standard.

4. Page 7 of 13, Condition 14: The condition states the permittee shall demonstrate compliance through performance tests and emissions monitoring in accordance with Method 20. As discussed, Method 7E is also acceptable. Calpine requests Method 7E be added to the condition.

Response: The Department will add Method 7E to the condition as an accepted NOx test method. This method will be added to Condition 20 as well.

5. Page 7 of 13, Condition 18 (b): This condition requests a verbal report within one day of a malfunction followed by a full written report with the quarterly excess emissions report. The OEC permit states that this report should only be provided upon request. Calpine believe this is the current understanding of the agency and requests, this language be undated to read, "...submitted in a quarterly report, upon request".

Response: The Department is making its request for quarterly reports as a specific condition of then permit. No changes were made.

6. Page 8 of 13, Condition 18 (c): Calpine's original understanding was that start-up, shut-down, and Part 75 missing data emissions were not to be included in the NOx TPY calculation. The permit currently states that the calculation should exclude missing data. However, the permit goes on to say that the total must match the data submitted to the Acid Rain Web Site. Data submitted to the Acid Rain Web Site includes start-up, shut-down, and Part 75 missing data emissions. These two statements are contradictory. In addition, Subpart GG specifies that Part 75 monitoring procedures are acceptable, with the exception of missing data. Missing Data is to be excluded from the data averages and reported as monitor down time. Calpine requests this language be deleted.

Response: The Department recognizes the differences in reporting required by the permit conditions and Part 75. The intent of the condition was to allow Calpine to have the data exclusions when calculating "ppmvd". These exclusions will not apply to the "TPY" total. The TPY total is established as an emissions cap to avoid PSD preconstruction review. The Department revised this condition to clarify that limited amounts of CEMS data may be excluded from the "ppmvd" limit, but not the "TPY" limit.

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7. Page 10 of 13, Condition 31 Paragraph 2: The continuous compliance averaging language for the CEMS has been accurately reflected in the OEC PSD Permit (Page 10 of 13, Condition 30). Calpine requests this language be inserted into this condition. In addition to the OEC language, Calpine requests the additional OEC and APEC clarifications that missing data or out-of-control periods are not to be included in the data averages and are to be included on the Excess Emissions Report as Monitoring System Downtime. Calpine requests that this paragraph be revised to read as follows:

“Continuous compliance with the CO and NOx emissions limits shall be demonstrated by the CEM system on a 24 hour average basis. Based on CEMS data, a separate compliance determination is conducted at the end of each period and a new average emissions 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.”

Response: The Department will revise the Condition 31 to define CO emissions averages consistently with NOx. Accordingly, Conditions 13 and 14 of this permit will also be revised to clarify the ppmvd averaging times for CO and NOx. However the condition will not be replaced with the requested language because the annual NOx and CO “TPY” limits do not allow any data exclusion, but the NOx and CO “ppmvd” limits do allow data exclusion per conditions 18(b) and 33 of this permit. However, compliance with the standards is based on CEMS. Therefore, Condition 23 will also be revised to only require CO and NOx performance tests pursuant to Rule 62-297.401, F.A.C.

8. Page 10 of 13, Condition 31 Paragraph 3: This paragraph provides the calculation methodology to determine the annual tons of NOx for EU-001 and EU-006. This calculation does not provide an accurate value for the tons emitted. Based on the first statement that all measurements shall be in pounds (converted to tons) and be based on a 12-month rolling total starting at the first day of each month, Calpine requests the language be updated to the following (changes are underlined):

“...Each monthly total shall be calculated by adding each valid 24-hour total in pounds for the associated month for all fuels. For this calculation, valid operating hours exclude start-up emissions, shut-down emissions, CEMS downtime, and Emissions Unit down time. This total shall be combined with the emissions from the previous 11-calendar months and shall comprise a ~~valid~~ 12-month rolling total.”

Response: The Department believes this change does not reflect the intent of the permit at the time of issuance. As previously discussed, the total “TPY” emissions limits do not allow data exclusion. The permit requires summing the pounds per hour rates for a daily (24-hour block) total. The daily mass emission rates are summed to provide a monthly total, which is used to determine the 12 month rolling total. No changes were made.

9. Page 10 of 13, Condition 31, Paragraph 4: This paragraph provides the calculation methodology to determine an annual equivalent NOx emissions for EU-001. This calculation does not provide an accurate value for the annual equivalent emissions. Based on the equation at the bottom of the page, the following text should be provided (changes are underlined):

“For the 9-ppm annual equivalent emissions limit, which is being placed upon EU001, measurement shall be in ppmvd and be based on a 12-month rolling average. At the end of each day a daily average shall be calculated from the valid operating hours. For this calculation valid operating hours exclude start-up emissions, shut-down emissions, CEMS downtime, Emissions Unit down time, and operating on fuel oil. Monthly averages shall consist of the average of each valid daily average. This monthly average shall be averaged with the previous valid 11 monthly averages and shall comprise a 12-month rolling average. Valid daily and monthly averages shall only consist of days and months in which valid hourly data is available. In order to convert each 12-month rolling average to an equivalent limit....”

Response: The requested change does not reflect the intent of the permit at the time of issuance. The “9

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ppmvd" limit, based on the formula in the condition, is to be calculated from emissions data collected when firing only natural gas. However, the Department agrees that the emissions calculation should be corrected to read "rolling average" instead of "rolling total" for the concentration-based standard.

10. Page 11 of 13, Condition 31, Paragraph 1: The CO calculation is the same calculation discussed earlier for NOx. As expressed in the permit, this calculation does not arrive at an accurate value for the CO mass emissions. Calpine suggests the same changes be made as suggested for Item #8 (Page 10 of 13, Condition 31 Paragraph 3) above. Calpine request that the condition read as follows:

"...Each monthly total shall be calculated by adding each valid 24-hour total in pounds for the associated month for all fuels. For this calculation, valid operating hours exclude start-up emissions, shut-down emissions, CEMS downtime, and Emissions Unit down time. This total shall be combined with the emissions from the previous 11-calendar months and shall comprise a 12-month rolling total."

Response: The Department believed this change does not reflect the intent of the permit at the time of issuance. CEMS will be used to comply with the TPY limit and no data exclusion is allowed. The Department does not believe this change is justified, and will not make any changes to the PSD.

11. Clarification, Page 5 of 13, Condition 5: This condition states that natural gas fired in this unit shall contain no more than 2 grains per 100 dry standard cubic feet of gas on a monthly basis. However, page 12 and 13 of 13, conditions 35 and 36 state that Part 75 Appendix D sulfur content may be used to show compliance. Part 75 states that users of pipeline quality natural gas may sample their gas on an annual basis. If this is not the case, Calpine requests a clarification.

Response: Condition 35 and 36 state that methods either in Subpart GG or 40 CFR 75 may be used as long as the 40 CFR 60.333 SO₂ standard is met. Calpine would need an EPA-approved custom fuel monitoring schedule meeting all applicable requirements of 40 CFR 75 in Appendix D to monitor of SO₂ in lieu of the requirements of Subpart GG.

12. Clarification, Page 6 of 13, Condition 9: The water injection technology section states "the system shall be designed and operated so as to ensure that NOx emissions do not exceed 25 ppmvd @15% O₂". However, other sections specifically state that NOx is limited to 25 ppmvd @ 15% O₂ while burning natural gas and 42 ppmvd @ 15% O₂ while burning oil. Calpine requests the language be updated to state "25 ppmvd @15% O₂ on natural gas and 42 ppmvd @ 15% O₂ on oil".

Response: Conditions 12 and 14 of this permit specify the oil limit with the gas limit for NOx. The Department will revise Condition 9 to reflect the oil emission limit already established in the permit.

13. Clarification, Page 7 of 13, Condition 18(b): This requirement states that "up to 2-hours of monitoring data during any 24-hour period may be excluded from continuous compliance demonstrations as a result of startups, shutdowns, and documented malfunctions". The requirement on page 11 of 13, Condition 33 states "periods of data excluded for all start up, shutdown or malfunction episodes shall not exceed 4 hours in any 24-hour block period", "data excluded for startup and shutdown shall not exceed two hours in any 24 hour block period", and "data excluded for malfunctions shall not exceed two hours in any 24-hour block period". Conditions 18(b) and 33 appear to contradict each other. Calpine requests the Department review these requirements and provide an appropriate clarification.

Response: Condition 18(b) will be revised to reference condition 33 which establishes the authorized periods of CEMS data exclusion. Condition 33 will also be clarified.

14. Conditions, Page 8 of 13, 20 and 23: Calpine requests the Department establish a minimum number of operating hours on natural gas necessary to trigger annual testing requirements. Calpine proposes a 400-hour threshold similar to that established for oil. {This request was listed in the Title V section of the response, but would also require a modification to Air Construction Permit 1050221-004-AC.}

Response: As Calpine indicated in its request, the Department made a similar determination (400-hour

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threshold for annual testing on gas) for the Santa Rosa Energy Center (PSD-FL-352). However, this was a case-by-case determination for the given site and circumstances. Similarly, the Department will review Calpine's request given the unique factors and details of the project. The following table summarizes operation and emissions based on the 2002-2004 Annual Operating Reports for this facility. As shown, EU-006 has not operated over 400 hours in any of the past three years. The highest year of operation was 2003 with 353 hours per year.

Year	Hour	CO	PM/PM ₁₀	NO _x	VOC
2002	157	<1	0.45	6.52	0.21
2003	353	0.77	1.27	17.6	0.58
2004	216	0.63	0.4	6.97	0.18

When firing natural gas, actual annual NO_x and CO emissions are well below the permitted levels of 115 tpy and 99 tpy, respectively. Continuous compliance with the NO_x and CO emissions standards is demonstrated by CEMS. When firing natural gas, it is expected that PM/PM₁₀ and VOC emissions will also be very low because of the efficient combustion (shown by low CO levels) and the nearly negligible sulfur and ash content of natural gas. Therefore, the Department determines that annual stack tests for PM/PM₁₀ and VOC are not required if EU-006 operates less 400 hours in a federal fiscal year. Also, NO_x and CO CEMS will demonstrate continuous compliance with the emission standards. As previously described, Conditions 20 and 23 will also be revised to only require CO and NO_x performance tests subsequent to initial tests pursuant to Rule 62-297.310(7)(b), F.A.C.

OEC-PSD-FL-287

1. Page 6 of 13, Condition 4 and 5-As discussed in prior correspondence, the Title V permit will combine the Combustion Turbines and HRSGs into two ARMS emission units: EU001 and EU002. The agency may want to update the PSD to match.

Response: The Combustion Turbines and HRSG will be combined into same subsection in the Title V permit (Subsection D). Since the turbines and HRSGs have independent emission standards and are subject to different NSPS standards (Subpart GG for Emissions Units 1 and 2 and Subpart Da for Emissions Units 3 and 4), each will retain its own EU number. The Department will not change the PSD permit.

2. Page 8 of 13, Condition 20-The last bullet in this condition states missing data shall be handled as required by Title IV. However, Subpart GG specifies that Part 75 monitoring is acceptable with the exception of missing data. Missing Data is to be excluded from the data averages and reported as monitor down time. In addition, Condition 30 specifically states that valid emission rates shall not include periods of start up or shutdown. Calpine's understanding of the emission limit is that start-up, shutdown, and missing data are not to be included in the daily averages. Calpine requests this bullet be deleted.

Response: The Department recognizes the differences in reporting required by the permit conditions of this permit and Part 75. The last bullet of the condition will be revised in this condition to clarify the exclusions of Part 75 and Condition 30.

3. Page 10 of 13, Condition 29-Calpine requests the CO language state: "EPA Reference Method 10, "Determination of Carbon Monoxide Emissions for Stationary Sources" or via annual the RATA test".

Response: The Department agrees this will be a valid method for determining compliance with CO. The condition will be changed to allow the RATA test to show compliance. However, Calpine still has to comply with the conditions of Condition 32.

4. Page 10 of 13, Condition 32-This condition requires NO_x and CO test results to be the average of three valid one-hour runs. However, if Method 7E is used, the results may include the average of 63-minute runs.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Calpine suggests this language be changed to read, "average of three valid test runs each at least one hour long.

Response: The permit will be revised to reflect valid runs at least one hour long.

5. *Page 11 of 13, Condition 41*-This condition specifies a version of Subpart GG. Calpine requests the department delete this reference.

Response: The Department will delete the reference to the 1998 Version of Subpart GG.

6. *Page 13 of 13, Condition 46*-This condition provides a calculation to determine ammonia slip. The equation is based on the change in NOx across the catalyst. It is Calpine's understanding this calculation excludes data occurring during start-up and shut-down. Calpine requests this be clarified in the permit

Response: The Department recognizes start up and shut down emissions are excluded for NOx when calculating ppmv limit. The condition will be revised to reflect this in the definition of the calculation for NOx when calculating ammonia slip for ppmv.

Title V Permit

1. *Conditions A.12, C.12, C.15(d), D.10*: Due to the combining of the various permits, Calpine requests clarification of the start-up/shut-down/malfunction time limits and 24-hour averages. Unless otherwise directed by the department, Calpine intends to meet these limits by (a) completing a start/stop/malfunction log (thereby recording compliance with the start-up/shut-down/malfunction time limits) and (b) excluding all hours (greater or less than the time limits) attributed to start-up/shut-down/malfunction and averaging the remaining operating 24-hours. Calpine does not believe this requires a change or clarification in the permit.

Response: The Department will not revise any of the startup, shutdown, or malfunction (SSM) time limits or averages for any of the Calpine Emission Units. The requirements for each Emissions Unit are unique and the SSM requirements specified are unique to the specific unit as intended in the original Air Construction Permit. Calpine will comply with the specific SSM conditions for each emissions unit. Any revisions will be specific to each emission unit.

4. PRELIMINARY DETERMINATION

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

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF FINAL PERMIT REVISION

In the Matter of an
Application for Permit by:

Mr. Benjamin M. H. Borsch, Manager- Safety, Health, and Environment
Calpine Corporation
2701 North Rocky Point Road, Suit 200
Tampa Fl, 33823

Auburndale Energy Complex
No. 1050221-010-AC
Project- Miscellaneous Revisions to
Past Permits

On May 27, 2005, Calpine Corporation submitted an application to revise several conditions of Permit Nos. PSD-FL-185, 1050221-004-AC, and PSD-FL-287. These permits primarily regulate Emissions Units at the Auburndale Energy Complex, which is located at 1501 and 1651 Derby Avenue, Auburndale, Polk County.

Enclosed is Final Permit Revision, which modifies the following air construction permits: PSD-FL-185, 1050221-004-AC, and PSD-FL-287. A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permit modification is issued pursuant to Chapter 403, Florida Statutes.

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

Executed in Tallahassee, Florida.

(DRAFT)

Michael G. Cooke, Director
Division of Air Resource Management

CERTIFICATE OF SERVICE

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

Benjamin M. H. Borsch, Calpine*
Heidi Whidden, Calpine
Mara Nasca, DEP- SWD

Clerk Stamp

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

(Clerk)

(Date)

FINAL PERMIT REVISION

Permit No. PSD-FL-185 (EU 001)

All construction related to this project is complete and no further construction is authorized by this action. The following permit conditions are revised as follows. All other conditions are unchanged and the affected emissions units remain subject to the applicable requirements.

General Condition 8, Page 3 of 10 is hereby revised:

From: If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including dates and times; or if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

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

To: If temporarily not able to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind, or other cause, the permittee shall notify the Compliance Authority as soon as possible, but at least with in one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future reoccurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations.

Specific Condition 8, Page 6 of 10, is hereby revised:

From: Compliance with NO_x, SO₂, CO, PM, PM₁₀, and VOC standards shall be determined (while operating at 95% to 100% of the permitted maximum heat rate input) within 180 days of initial operation and annually thereafter, by the following reference methods as described in 40 CFR 60, Appendix A (July 1991 version) and adopted by reference in F.A.C. Rule 17-2.700.

- Method 1. Sample and Velocity Traverses
- Method 2. Volumetric Flow Rate
- Method 3. Gas Analysis
- Method 5. Determination of Particulate Matter Emissions from Stationary Sources
- Method 9. Determination of the Opacity of the Emissions from Stationary Sources
- Method 8. Determination of the Sulfuric Acid of the Emissions from Stationary Sources
- Method 10. Determination of Carbon Monoxide Emissions from Stationary Sources,
- Method 20. Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines (Initial Test Only)
- Method 25A. Determination of Volatile Organic Compounds Emissions from Stationary Sources

Other DER approved methods may be used for compliance testing after prior Department Approval.

To: Compliance with NO_x, SO₂, CO, PM, PM₁₀, and VOC standards shall be determined (while operating at 90% to 100% of the permitted maximum heat rate input) within 180 days of initial operation and annually thereafter, by the following reference methods as described in 40 CFR 60, Appendix A and

FINAL PERMIT REVISION

adopted by reference in F.A.C. Rule 17-2.700.

- Method 1. Sample and Velocity Traverses
- Method 2. Volumetric Flow Rate
- Method 3. Gas Analysis
- Method 5. Determination of Particulate Matter Emissions from Stationary Sources
- Method 7E Determination of Nitrogen Oxides Emissions From Stationary Sources (Instrumental Analyzer Procedure)
- Method 9. Determination of the Opacity of the Emissions from Stationary Sources
- Method 8. Determination of the Sulfuric Acid of the Emissions from Stationary Sources
- Method 10 Determination of Carbon Monoxide Emissions from Stationary Sources
- Method 20 Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
- Method 25A Determination of Volatile Organic Compounds Emissions from Stationary Sources

Other DER approved methods may be used for compliance testing after prior Department Approval.

Specific Condition 16, Page 8 of 10 is hereby revised:

From: The permittee shall install, calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxide emissions from this source. The continuous emission monitor must comply with the 40 CFR 60, Appendix B, Performance Specification 2 (July 1991).

To: The permittee shall install, calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxide emissions from this source in accordance with 40 CFR 60.334.

Specific Condition 17, Page 8 of 10 is hereby revised:

From: A continuous monitoring system shall be installed and record the fuel consumption on each unit. While steam water injection is being utilized for NOx control, the water (all phases) to fuel ratio shall be continuously monitored. The system shall meet the requirements of 40 CFR 60, Subpart GG. The NOx CEMS will be used in lieu of the water/fuel monitoring system and fuel bound nitrogen monitoring, which are required in 40 CFR 60.334. The NOx CEMS shall be used to report emissions during periods of startup, shutdown and malfunction in lieu of FBN monitoring and the water/fuel monitoring system described in 40 CFR 60.334(c)(1).

To: A continuous monitoring system shall be installed and record the fuel consumption on each unit. While steam water injection is being utilized for NOx control, the water (all phases) to fuel ratio shall be continuously monitored. The system shall meet the requirements of 40 CFR 60, Subpart GG. The NOx CEMS will be used in lieu of the water/fuel monitoring system, which are required in 40 CFR 60.334. The NOx CEMS shall be used to report emissions during periods of startup, shutdown and malfunction in lieu of the water/fuel monitoring system described in 40 CFR 60.334. The permitted will continuously monitor and record the water/fuel ratio as a backup method for ensuring compliance when the NOx CEMS is unavailable.

Specific Condition 24, Page 9 of 10 is hereby revised:

From: Quarterly excess emissions, in accordance with the July 1, 1991 version of 40 CFR 60.7 and 60.334 shall be submitted quarterly to the DER's Southwest District Office.

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To: Quarterly excess emissions, in accordance with 40 CFR 60.7 and 60.334 shall be submitted quarterly to the DEP's Southwest District Office.

Specific Condition 27, Page 9 of 10 is hereby revised:

From: Pursuant to F.A.C. Rule 17-210.300(2), Air Operating Permits, the permittee is required to submit annual reports in the actual operating rates and emissions from this facility. These reports shall include, but not be limited to the following: sulfur, nitrogen contents and the lower heating value of the fuel being fired, fuel usage, hours of operation, air emissions limits, etc. Annual reports shall be sent to the Department's Southwest District Office by March 1 of each calendar year.

To: Annual Operating Report: Pursuant to Rule 62-210.370(2), F.A.C., 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 March 1st of each year.

DRAFT PERMIT

FINAL PERMIT REVISION

Permit No. 1050221-004-AC (EU 006)

All construction related to this project is complete and no further construction is authorized by this action. The following permit conditions are revised as follows. All other conditions are unchanged and the affected emissions units remain subject to the applicable requirements.

Placard Page, Page 1 of 13, paragraph 1, is hereby revised:

From: The proposed project authorizes the installation of one simple cycle, combustion turbine with an electrical generator set. The gas turbine is capable of producing a nominal 104 MW of electricity.

To: The proposed project authorizes the installation of one simple cycle, combustion turbine with an electrical generator set. The gas turbine is capable of producing a nominal 120 MW of electricity.

Facility Description, Page 2 of 13, paragraph 1, last sentence, is hereby revised:

From: Completion of this project will result in the installation of a new electric power generator capable of providing a nominal 104 MW of electrical power.

To: Completion of this project will result in the installation of a new electric power generator capable of providing a nominal 120 MW of electrical power.

Specific Condition 9, Page 6 of 13, is hereby revised:

From: Water injection Technology: the permittee shall install, calibrate, tune, operate, and maintain a water injection system for the unit. The system shall be designed and operated so as to ensure that NOx emissions do not exceed 25 ppmvd @ 15% O₂.

To: Water injection Technology: the permittee shall install, calibrate, tune, operate, and maintain a water injection system for the unit. The system shall be designed and operated so as to ensure that NOx emissions do not exceed 25.0 ppmvd @ 15% O₂ while burning gas and 42.0 ppmvd @ 15% O₂ while burning oil.

Specific Condition 13, Page 6 of 13 is hereby revised:

From: Carbon Monoxide (CO):

CO emissions from the combustion turbine shall not exceed 10.0 ppmvd (at full output of the emissions unit) corrected to 15% oxygen. Additionally, annual emissions of CO from this emission unit shall not exceed 99 TPY, based upon a 12-month rolling total.

The permittee shall demonstrate compliance with this standard by conducting performance tests and emissions monitoring in accordance with EPA Method 10 and the CEMS requirement of this permit. [Rule 62-212.400, F.A.C. (PSD avoidance)]

To: Carbon Monoxide (CO):

CO emissions from the combustion turbine shall not exceed 10.0 ppmvd (at full output of the emissions unit) corrected to 15% oxygen 24-hour average. Additionally, annual emissions of CO from this emission unit shall not exceed 99 TPY, based upon a 12-month rolling total.

The permittee shall demonstrate compliance with this standard by conducting performance tests and emissions monitoring in accordance with EPA Method 10 and the CEMS requirement of this permit. CO (ppmvd) emissions from the new emissions unit shall not exceed the specified limitations based on a 24-hour block average for data collected from the continuous emissions monitor. [Rule 62-212.400, F.A.C. (PSD avoidance)]

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Specific Condition 14, Page 6 of 13 is hereby revised:

From: Nitrogen Oxides (NO_x):

NO_x emissions from the combustion turbine shall not exceed 25.0 ppmvd nor 42.0 ppmvd (gas and oil respectively) corrected to 15% oxygen. Additionally, annual emissions of NO_x from this emission unit shall not exceed 115 TPY, based upon a 12-month rolling total. In this regard, existing EU-001 shall be required to comply with an annual NO_x emission limit of 177 TPY, as well as an equivalent annual NO_x limit of 9 ppmvd corrected to 15% oxygen, based upon a 12-month rolling total and natural gas firing. These emission limits are in addition to all existing limits on EU-001, and are unit specific limits imposed as a result of the applicant's desire to net out of a PSD review for NO_x for EU-006.

The permittee shall demonstrate compliance with this standard as described in Specific Condition 31 and by conducting performance tests and emissions monitoring in accordance with EPA Method 20 and the CEMS requirement of this permit. Short-term (ppmvd) NO_x emissions from the new emissions unit shall not exceed the specified limitations based on a 24-hour block average for data collected from the continuous emissions monitor. [Rule 62-212.400, F.A.C. (PSD avoidance)]

To: Nitrogen Oxides (NO_x):

NO_x emissions from the combustion turbine shall not exceed 25.0 ppmvd nor 42.0 ppmvd (gas and oil respectively) corrected to 15% oxygen 24-hour average. Additionally, annual emissions of NO_x from this emission unit shall not exceed 115 TPY, based upon a 12-month rolling average. In this regard, existing EU-001 shall be required to comply with an annual NO_x emission limit of 177 TPY based on a 12-month rolling total, as well as an equivalent annual NO_x limit of 9 ppmvd corrected to 15% oxygen, based upon a 12-month rolling total and natural gas firing. These emission limits are in addition to all existing limits on EU-001, and are unit specific limits imposed as a result of the applicant's desire to net out of a PSD review for NO_x for EU-006.

The permittee shall demonstrate compliance with this standard as described in Specific Condition 31 and by conducting performance tests and emissions monitoring in accordance with EPA Method 20 and the CEMS requirement of this permit. NO_x (ppmvd) emissions from the new emissions unit shall not exceed the specified limitations based on a 24-hour block average for data collected from the continuous emissions monitor. [Rule 62-212.400, F.A.C. (PSD avoidance)]

Specific Condition 14, paragraph 2, 1st sentence, Page 7 of 13 is hereby revised:

From: The permittee shall demonstrate compliance with this standard as described in Specific Condition 31 and by conducting performance tests and emissions monitoring in accordance with EPA Method 20 and the CEMS requirement of this permit.

To: The permittee shall demonstrate compliance with this standard as described in Specific Condition 31 and by conducting performance tests and emissions monitoring in accordance with EPA Method 20 or Method 7E and the CEMS requirement of this permit.

Specific Condition 18(b), Page 7 of 13 is hereby revised:

From: (b) During all startups, shutdowns and malfunctions, the continuous emissions monitor (CEM) shall monitor and record emissions. However, up to 2 hours of monitoring data during any 24-hour period may be excluded from continuous compliance demonstrations as a result of startups, shutdowns, and documented malfunctions. In case of malfunctions, the permittee shall notify the Compliance Authorities within one working day. A full written report on the malfunction shall be submitted in a quarterly report. [Design; Rules 62-210.700(1), (5), and 62-4.130, F.A.C.]

To: (b) During all startups, shutdowns and malfunctions, the continuous emissions monitor (CEM) shall monitor and record emissions. No valid monitoring data shall be excluded from the mass-based (TPY)

CO and NO_x emissions limits. Monitoring data collected during startup, shutdown and malfunctions may be excluded in accordance with Condition 33 of this permit when determining compliance with concentration-based (ppmvd) CO and NO_x emissions limits. In case of malfunctions, the permittee shall notify the Compliance Authorities within one working day. A full written report on the malfunction shall be submitted in a quarterly report. [Design; Rules 62-210.700(1), (5), and 62-4.130, F.A.C.]

Specific Condition 18(c), Page 8 of 13 is hereby revised:

From: (c) CEMS data exclusion and replacement methods shall be in accordance with EPA's Acid Rain requirements. Additionally, the permittee's record-keeping for EU-001 and EU-006 NO_x emissions caps (TPY) shall be in full agreement with publicly available data on EPA's Acid Rain website.

To: (c) CEMS data exclusion and replacement methods shall be in accordance with EPA's Acid Rain requirements. Additionally, the permittee's record-keeping for EU-001 and EU-006 NO_x emissions caps (TPY) shall be in full agreement with publicly available data on EPA's Acid Rain website which includes all documented exclusions reported to the Department in a quarterly report. The permittee may exclude startup, shutdown and Part 75 missing data from the ppmvd calculations. However, this data will need to be recorded for the TPY calculations for netting purposes and required by the Acid Rain Web Site.

Specific Condition 20, Page 8 of 13 is hereby revised:

From: Performance Test Methods: Initial (I) and Annual (A) compliance tests shall be performed in accordance with the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.

- (a) EPA Method 9 – Visual Determination of the Opacity of Emissions from Stationary Sources (I, A);
- (b) EPA Method 10 – Determination of Carbon Monoxide Emissions from Stationary Sources (I, A);
- (d) EPA Method 20 – Determination of Oxides from Nitrogen Oxide, Sulfur Dioxide, and Diluent Emissions from Stationary Sources (I, A);
- (e) EPA Method 25A – Determination of Volatile Organic Concentrations (I). (EPA Method 18 may be conducted to account for the non-regulated methane portion of the VOC emissions.

Annual RATA testing at 100% output may be utilized to satisfy the about annual requirements for CO and NO_x tests. No other methods may be used for compliance testing unless prior DEP approval is received, in writing, from the DEP Emissions Monitoring Section Administrator in accordance with an alternate sampling procedure specified in Rule 62-297.620, F.A.C.

To: Performance Test Methods: Initial (I) and Annual (A) compliance tests shall be performed in accordance with the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.

- (a) EPA Method 9 – Visual Determination of the Opacity of Emissions from Stationary Sources (I, A);
- (b) EPA Method 10 – Determination of Carbon Monoxide Emissions from Stationary Sources (I, A);
- (c) EPA Method 20 – Determination of Oxides from Nitrogen Oxide (Method 7E may be used for Nitrogen Oxide), Sulfur Dioxide, and Diluent Emissions from Stationary Sources (I, A);
- (d) EPA Method 25A – Determination of Volatile Organic Concentrations (I). (EPA Method 18 may be conducted to account for the non-regulated methane portion of the VOC emissions.

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. Annual RATA testing at 100% output may be utilized to

FINAL PERMIT REVISION

satisfy the about annual requirements for CO and NO_x tests. No other methods may be used for compliance testing unless prior DEP approval is received, in writing from the Department.

Specific Condition 23, Page 8 of 13 is hereby revised:

From: Annual Performance Tests: To demonstrate compliance with the emission standards specified in this permit, the permittee shall conduct annual performance tests for CO, NO_x and visible emissions from the combustion turbine. If conducted at permitted capacity, CO and NO_x emissions data collected during the annual CO and NO_x continuous monitor RATA required pursuant to 40 CFR 75 may be substituted for the required annual performance test. Tests required on an annual basis shall be conducted at least once during each federal fiscal year (October 1st to September 30th). [Rule 62-297.310(7)(a)4., F.A.C.]

To: Annual Performance Tests: To demonstrate compliance with the emission standards specified in this permit, the permittee shall conduct annual performance tests for visible emissions from the combustion turbine. Tests required on an annual basis shall be conducted at least once during each federal fiscal year (October 1st to September 30th). For each CEMS, the permittee shall conduct annual RATAs in accordance with the regulations of 40 CFR 75 for NO_x and Performance Specification 4 or 4A for CO. [Rules 62-297.401 and 62-297.310, F.A.C.]

Specific Condition 31, 2nd paragraph, First Sentence, Page 10 of 13 is hereby revised:

From: Compliance with the emission limits for NO_x shall be based on a 24-hour block average starting at midnight of each operating day.

To: Compliance with the emission limits for CO and NO_x shall be based on a 24-hour block average starting at midnight of each operating day.

Specific Condition 31, 4th paragraph and formula, Page 10 of 13 is hereby revised:

From: For the 9-ppmvd annual equivalent emissions limit, which is being placed upon EU-001, measurements shall be in ppmvd 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 each valid (daily) 24-hour gas firing block averages (as determined above) from valid operating days within the calendar month. This monthly total shall be combined with the previous valid 11 calendar months and shall comprise a 12-month rolling total. In order to convert each 12-month rolling total to an annual equivalent limit, the following formula shall be utilized:

$$\text{ppmvd}_e = \text{ppmvd}_a * [\text{hours}_g / 8760] \quad \text{where:}$$

ppmvd_e = the equivalent annual short-term emissions for nitrogen oxides (ppmvd corrected to 15% O₂)

ppmvd_a = the measured (CEMS) 12-month rolling short-term emissions for NO_x (ppmvd corr. to 15% O₂)

hours_g = 12-month rolling total valid hours of operation combusting natural gas

To: For the 9-ppmvd annual equivalent NO_x emissions limit, which is being placed upon EU-001, measurements shall be in ppmvd and be based on a 12-month rolling average starting at the first day of each calendar month while firing natural gas only. Each monthly average shall be calculated by adding each valid (daily) 24-hour gas firing block averages (as determined above) from valid operating days within the calendar month. This monthly average shall be combined with the previous valid 11 calendar months and shall comprise a 12-month rolling average. In order to convert each 12-month rolling average to an annual equivalent limit, the following formula shall be utilized:

$$\text{ppmvd}_e = \text{ppmvd}_a * [\text{hours}_g / 8760] \quad \text{where:}$$

ppmvd_e = the equivalent annual NO_x average (ppmvd corrected to 15% O₂)

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ppmvd_a = the measured (CEMS) 12-month rolling NO_x average (ppmvd corr. to 15% O₂) while firing only natural gas

hours_g = 12-month rolling total valid hours of operation combusting natural gas

Specific Condition 33, 1st paragraph Page 11 of 13 is hereby revised:

From: NO_x/CO CEMS Data Requirements: NO_x, CO and O₂ emissions data shall be recorded by the CEM system during episodes of startup, shutdown and malfunction. NO_x and CO emissions data recorded during these episodes may be excluded from the 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 in any block 24-hour period. Periods of data excluded for malfunctions shall not exceed two hours in any 24-hour block period. 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 in any 24-hour block period. 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.

To: NO_x/CO CEMS Data Requirements: NO_x, CO and O₂ emissions data shall be recorded by the CEM system during episodes of startup, shutdown and malfunction. No valid monitoring data shall be excluded from the mass-based (TPY) CO and NO_x emissions limits. Monitoring data collected during startup, shutdown and malfunctions may be excluded in accordance with the following conditions when determining compliance with concentration-based (ppmvd) CO and NO_x emissions limits. NO_x and CO emissions data recorded during these episodes may be excluded from the 24-hour block average calculated to demonstrate compliance with the emission limits of this permit as provided in this paragraph. Periods of data excluded for startup and shutdown shall not exceed two hours in any block 24-hour period. Periods of data excluded for malfunctions shall not exceed two hours in any 24-hour block period. 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 in any 24-hour block period. 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.

FINAL PERMIT REVISION

Permit No. PSD-FL-287 (EU 007 and EU 008)

All construction related to this project is complete and no further construction is authorized by this action. The following permit conditions are revised as follows. All other conditions are unchanged and the affected emissions units remain subject to the applicable requirements.

Specific Condition 20, Page 8 of 13 is hereby revised:

- From:** When NO_x monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate any specified averaging time.
- To:** When NO_x monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate any specified averaging time. Part 75 missing data, start-up and shutdown emissions as defined in Condition 30 of this permit will not be included in the daily ppmvd averages.

Specific Condition 29, Page 10 of 13, is hereby revised:

- From:** EPA Reference Method 10, "Determination of Carbon Monoxide Emissions from Stationary Sources" (I, A).
- To:** EPA Reference Method 10, "Determination of Carbon Monoxide Emissions from Stationary Sources" (I, A) or RATA test data may be used to demonstrate compliance with the annual test requirement. CO compliance must be in accordance with Specific Condition 32.

Specific Condition 32, Page 10 of 13 is hereby revised:

- From:** Compliance with CO emission limit: An initial and annual test for CO shall be conducted at 100% capacity with the duct burners off. The NO_x and CO test results shall be the average of three valid one-hour test runs. Annual RATA testing for the CO and NO_x CEMS shall be required pursuant 40 CFR 75.
- To:** Compliance with CO emission limit: An initial and annual test for CO shall be conducted at 100% capacity with the duct burners off. The NO_x and CO test results shall be the average of three valid test runs with each being at least one hour long. Annual RATA testing for the CO and NO_x CEMS shall be required pursuant 40 CFR 75.

Specific Condition 41, Page 11 of 13 is hereby revised:

- From:** CEMS for reporting excess emissions: The CEMS shall be used in lieu of the requirement for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG (1998 version). 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.
- To:** CEMS for reporting excess emissions: The CEMS shall be used in lieu of the requirement for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG. 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.

Specific Condition 46, Fifth Bullet, Page 13 of 13 is hereby revised:

From: Selective Catalytic Reduction System (SCR) Compliance Procedures:

- Ammonia emissions shall be calculated continuously using inlet and outlet NO_x concentrations from the SCR system and ammonia flow supplied to the SCR system. The calculation procedure shall be provided with the CEM monitoring plan required by 40CFR Part 75. The following calculation represents one means by which the permittee may demonstrate compliance with this condition:

Ammonia slip @ 15%O₂ = (A-(BxC/1,000,000)) x (1,000,000/B) x D, where:

A = ammonia injection rate (lb/hr) / 17 (lb/lb.mol)

B = dry gas exhaust flow rate (lb/hr) / 29 (lb/lb.mol)

C = change in measured NO_x (ppmv@15%O₂) 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.

To: Selective Catalytic Reduction System (SCR) Compliance Procedures:

- Ammonia emissions shall be calculated continuously using inlet and outlet NO_x concentrations from the SCR system and ammonia flow supplied to the SCR system. The calculation procedure shall be provided with the CEM monitoring plan required by 40CFR Part 75. The following calculation represents one means by which the permittee may demonstrate compliance with this condition:

Ammonia slip @ 15%O₂ = (A-(BxC/1,000,000)) x (1,000,000/B) x D, where:

A = ammonia injection rate (lb/hr) / 17 (lb/lb.mol)

B = dry gas exhaust flow rate (lb/hr) / 29 (lb/lb.mol)

C = change in measured NO_x (ppmv@15%O₂) 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 ppmv limit.

STATEMENT OF BASIS

Calpine Operating Services Company, Inc.
Auburndale Energy Complex
Facility ID No.: 1050221
Polk County

Title V Air Operation Permit Revision
DRAFT Permit Project No.: 1050221-009-AV
Revision to Title V Air Operation Permit No.: 1050221-007-AV

The current Title V Air Operation Permit, No. 1050221-007-AV, was issued on December 31, 2002. This Title V Air Operation Permit Revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

The subject of this permit revision is to incorporate the terms and conditions of air construction permit, No. 1050334-001-AC, for the newly constructed Osprey Energy Center. The Osprey Energy Center was initially constructed with the intention of being a stand alone facility. However, it is contiguous with the Auburndale Cogeneration Facility, and will be incorporated in the Auburndale Cogeneration Facility permit, Facility ID No. 1050221, with the permit to be named the Auburndale Energy Complex. This facility will be incorporated as part of the Auburndale Energy Complex, and all units will operate under Facility ID No. 1050221. The emissions units (EU 007 through EU 011) have been built and the initial performance test has been conducted and compliance demonstrated. The permit revision will also incorporate the terms of construction permit Nos. 1050334-006-AC and 1050334-007-AC which modify conditions in air construction permit 1050334-001-AC. This permit revision will also incorporate revisions made to previously issued air construction permit. These revisions will be reflected in the Title V revision. Refer to the Technical Evaluation and Preliminary Determination for project 1050221-010-AC.

The Auburndale Energy Complex consists of four collocated combustion turbines along with ancillary and supporting equipment and facilities. Auburndale Operating Services Company, Inc. operates all of the units at the facility; however, there are three different owners for combustion turbines. EU 001 is owned by Auburndale Power Partners, L.P. EU 006 is owned by Auburndale Peaker Energy Center, LLC (APEC). EUs 007 and 008 are the newly constructed units, and are owned by Calpine Construction Finance Company, L.P.

One turbine, the Auburndale Cogeneration unit, owned by Auburndale Power Partners, L.P. (APP) is a 156 (nominal) MW unit operated in combined cycle with an unfired heat recovery steam generator. This unit also generates steam for use by two adjacent manufacturing facilities. The second turbine, owned by Auburndale Peaker Energy Center, LLC (APEC) is a 120 (nominal) MW unit operated in simple cycle. The third and fourth turbines are located at the Osprey Energy Center. Owned by Calpine Construction Finance Company, L.P., these turbines are two (2) nominal 170-MW natural gas-fired combustion turbines with two (2) HRSG equipped with duct burners and one (1) common nominal 200-MW steam generator.

The new combined cycle combustion turbine (CT) cogeneration systems (EUs 007 and 008) with each combined cycle system consists of one 170 MW Siemens Westinghouse "F" Class (501FD) combustion turbine (CT) with one 200 MW steam turbine-generator, and one HRSG. Each 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 emission. Continuous Emission Monitoring Systems (CEMS) are used to determine compliance with all NO_x emission limits. CEMS serves as the continuous compliance determination method.

The two new Heat Recovery Steam Generators with 250 MMBtu duct burners LHV (EU 009 and 010) are for supplemental firing and to achieve peak output. The Duct Burner can only fire pipeline natural gas. Low NO_x burners (LNB) are used to control NO_x emissions.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Based on the Title V Air Operation Permit Revision application received September 17, 2004, this facility is not a major source of hazardous air pollutants (HAPs).

Calpine Construction Finance Company, LP
Auburndale Peaker Energy Center, LLC
Auburndale Power Partners, L.P.

Auburndale Energy Complex
Facility ID No.: 1050221
Polk County

Title V Air Operation Permit Revision

DRAFT Permit No.: 1050221-009-AV
Revision to Title V Air Operation Permit No.: 1050221-007-AV

Permitting Authority:

State of Florida
Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
Title V Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Telephone: 850/488-0144
Fax: 850/922-6979

Compliance Authority:

State of Florida
Department of Environmental Protection
Southwest District Office
3804 Coconut Palm Drive
Tampa, Florida 33619-8218
Telephone: 813/744-6100
Fax: 813/744-6084

Title V Air Operation Permit Revision

DRAFT Permit No.: 1050221-009-AV

Revision to Title V Air Operation Permit No.: 1050221-007-AV

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Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

Permittee:

Calpine Construction Finance Company, LP
Auburndale Power Partners, L.P.
Auburndale Peaker Energy Center, LLC

DRAFT Permit No.: 1050221-009-AV

Facility ID No.: 1050221

SIC Nos.: 49, 4911

Project: Title V Air Operation Permit Revision

This draft permit revision is being issued for the purpose of incorporating the terms and conditions of the air construction permit Nos. 1050334-001-AC (PSD-FL-287), for two (2) combined cycle combustion turbines, two (2) duct burners with Heat Recovery Steam Generators (HRSG), one (1) common nominal 200-MW steam generator, and one (1) cooling tower; 1050334-006-AC, issued on May 16, 2005 to modify 1050334-001-AC; 1050034-007-AC, issued on July 5, 2005 to modify 1050334-001-AC; and 1050221-010-AC to incorporate PSD modifications to previously issued Air Construction permits at the Auburndale Energy Complex. These facilities located at 1501 Derby Avenue (Auburndale Power Plant and Auburndale Peak Energy Center) and 1651 Darby Avenue (Osprey Energy Center), Auburndale, Polk County; UTM Coordinates: Zone 17, 420.8 km East and 3103.3 km North; Latitude: 28° 83' 15" North and Longitude: 81° 48' 21" West.

This 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 permittees are hereby authorized to perform the work or operate their facilities shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:

Appendix I-1, List of Insignificant Emissions Units and/or Activities
Appendix U-1, List of Unregulated Emissions Units and/or Activities
APPENDIX TV-5, TITLE V CONDITIONS (version dated 4/5/05)
APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)
FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE (version dated 7/96)
TABLE 297.310-1, CALIBRATION SCHEDULE (version dated 10/07/96)
Phase II Acid Rain Application
W501D5 ECONOPAC SYSTEM PERFORMANCE GRAPH CURVE LABELED "POWER" -
FIGURE 2

Effective Date: ARMS Day 55

Renewal Application Due Date: July 5, 2007

Expiration Date: December 31, 2007

Michael G. Cooke, Director
Division of Air Resource Management

MGC/JFK/rfb

"More Protection, Less Process"

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Section I. Facility Information.

Subsection A. Facility Description.

The Auburndale Energy Complex (the Facility) consists of four collocated combustion turbines along with ancillary and supporting equipment and facilities. Auburndale Operating Services Company, Inc. operates all of the units at the Facility; however, there are three different owners for the combustion turbines. EU 001 is owned by Auburndale Power Partners, L.P. EU 006 is owned by Auburndale Peaker Energy Center, LLC (APEC). EUs 007 and 008 are the newly constructed units, and are owned by Calpine Construction Finance Company, L.P.

One turbine, owned by Auburndale Power Partners, L.P. (APP) is a 156 (nominal) MW unit (EU 001) operated in combined cycle with an unfired heat recovery steam generator. This unit also generates steam for use by two adjacent manufacturing facilities. The second turbine, owned by Auburndale Peaker Energy Center, LLC (APEC) is a 120 (nominal) MW unit (EU006) operated in simple cycle. The third and fourth turbines (EU 007 and EU 008) are located at the Osprey Energy Center. EU 007 and 008 are owned by Calpine Construction Finance Company, L.P. These turbines are two (2) nominal 170-MW natural gas-fired combustion turbines with two (2) HRSG equipped with duct burners and one (1) common nominal 200-MW steam generator.

Also located at the Facility are two distillate fuel oil storage tanks (Auburndale Power Plant); one regulated cooling tower (Osprey Energy Center), and miscellaneous unregulated/insignificant emissions units and/or activities.

Based on the Title V Air Operation Permit Revision application received September 17, 2004, this facility is not a major source of hazardous air pollutants (HAPs).

Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U.

<u>ID No.</u>	<u>Brief Description</u>
-001	Combined Cycle Combustion Turbine
-002	Fuel Oil Storage Tanks (2)
-003	Emergency Generators
-004	Heating Units and Engines
-005	Surface Coating Operations
-006	Simple Cycle Combustion Turbine
-007	170 MW gas Combustion Turbine Electrical Generator
-008	170 MW gas Combustion Turbine Electrical Generator
-009	250 MMBtu Duct Burner with HRSG
-010	250 MMBtu Duct Burner with HRSG
-011	Cooling Tower

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Subsection C. Relevant Documents.

The documents listed below are not a part of this permit. However, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:

Table 1-1, Summary of Air Pollutant Standards and Terms

Table 2-1, Summary of Compliance Requirements

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers

Appendix H-1, Permit History / ID Number Changes

Statement of Basis

These documents are on file with permitting authority:

Title V Revision Application received September 17, 2004

Comments on Draft Title V Permit Received January 26, 2005

Additional Information Received March 17, 2005

Air Construction Permits application received May 27, 2005

Request for Additional Information sent on June 24, 2005

Response to Request for Information received September-23, 2005

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-5, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-5, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided one copy when requested or otherwise appropriate.}
2. **Not federally enforceable.** General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]
3. Prevention of Accidental Releases (Section 112(r) of CAA).
 - a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:
RMP Reporting Center
Post Office Box 1515
Lanham-Seabrook, MD 20703-1515
Telephone: 301/429-5018
 - b. The permittee shall 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]
4. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]
5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.
[Rule 62-213.440(1), F.A.C.]
6. General Pollutant Emission Limiting Standards. 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 (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
[Rule 62-296.320(1)(a), F.A.C.]
7. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rule 62-296.320(4)(b)1., F.A.C.]

8. Not federally enforceable. The permittee shall take reasonable precautions, on an as needed basis, to prevent emissions of unconfined particulate matter at this facility to include:

- a. Chemical or water application to unpaved roads and unpaved yard areas;
- b. Paving and maintenance of roads, parking areas and yards;
- c. Landscaping or planting of vegetation;
- d. Confining abrasive blasting where possible; and
- e. Other techniques, as necessary.

[Rule 62-296.320(4)(c)2., F.A.C.; Proposed by applicant in the renewal Title V permit application received June 28, 2002]

{Note: This condition implements the requirements of Rules 62-296.320(4)(c)1., 3., & 4. F.A.C., condition 57. of APPENDIX TV-4, TITLE V CONDITIONS).}

9. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.

[Rule 62-213.440, F.A.C.]

10. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.

[Rules 62-213.440(3) and 62-213.900, F.A.C.]

{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-5, TITLE V CONDITIONS).}

11. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.

[Rule 62-213.420(4), F.A.C.]

12. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Southwest District office:

Department of Environmental Protection
Southwest District Office
3804 Coconut Palm Drive
Tampa, Florida 33619-8218
Telephone: 813/744-6100
Fax: 813/744-6084

13. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air and EPCRA Enforcement Branch
Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303-8960
Telephone: 404/562-9155; Fax: 404/562-9163

14. Annual Operating Report: This report shall include the sulfur content and lower heating value of the fuel fired, fuel usage, and hours of operation for the combined cycle unit (EU-001). This report shall also include a summary report of the rolling 12-month NOx and CO calculations for the simple cycle unit (EU-006). This report shall also include a summary of each of the prior year 12-month emission limitations, which are required for EU-001 and EU-006 by this permit. [PSD-FL-185, Condition number 27. and 1050221-004-AC]

Section III. Emissions Unit(s).

Subsection A. This section addresses the following emissions unit.

E.U. ID

No.

Brief Description

-001

Combined Cycle Combustion Turbine

Respective Permittee: Auburndale Power Partners, L.P.

This unit is a combined cycle combustion turbine (CT) cogeneration system with a combined total output of 156 MW. The combined cycle system consists of one 120 MW Westinghouse 501D5 combustion turbine (CT), one 52 MW steam turbine-generator, and one HRSG. The HRSG is not fuel fired. Water/Steam injection and/or Selective Catalytic Reduction, and good combustion practices are used to control air pollutant emissions. This unit may operate up to 8,760 hours per year and has historically operated at a capacity factor above 90%.

{Permitting note: This emissions unit is regulated under Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; Rule 212.400, F.A.C., Prevention of Significant Deterioration (PSD) and Best Available Control Technology (BACT).}

The following conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum heat input to the combustion turbine (CT) shall not exceed 1214 MMBtu/hr as determined using a lower heating value (LHV) at International Standards Organization (ISO) conditions while firing natural gas and 1170 MMBtu/hr as determined using a LHV at ISO conditions while firing No. 2 distillate fuel oil.
[Rule 62-4.160(2), F.A.C. and Rule 62-210.200, F.A.C., Definitions - (PTE)]

A.2. Methods of Operation - Fuels. Only natural gas or distillate (No. 2) fuel oil having a maximum sulfur content of 0.05 percent by weight shall be fired in the combustion turbine.
[Rules 62-4.160(2), F.A.C. and 62-213.410, F.A.C.]

A.3.1 Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. The total hours of operation of the combustion turbine while firing distillate fuel oil shall not exceed 400 hours/year.
[Rule 62-4.160(2), F.A.C. and Rule 62-210.200, F.A.C., Definitions - (PTE)]

A.3.2 Wet Compression System. Operation of the wet compression system is approved for use on Unit 1 during any periods at which the ambient temperature is above 60 degrees F. Use of the wet compression system is limited to periods during the firing of natural gas only.
[1050221-005-AC]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting note: Unless otherwise specified, the averaging time for conditions A.4. - A.10. are based on the specified averaging time of the applicable test method.}

A.4. Visible emissions (VE) at full load (i.e., 156 MW) shall not exceed 10% opacity.
[Best Available Control Technology (BACT) Determination dated December 14, 1992.]

A.5. Visible emissions (VE) at other than full load shall not be equal to or greater than 20% opacity.
[PSD-FL-185]

A.6. Particulate matter ten (PM10) emissions shall not exceed:

a. while firing natural gas:

0.0134 lb/mmBtu (see note #2); 10.5 lbs./hour (see note #1); 46 TPY (see note #2);
and

b. while firing distillate fuel oil:

0.0472 lb/mmBtu (see note #2); 36.8 lbs./hour (see note #1); 7.4 TPY (see note #2).

[Notes: #1 - BACT Determination dated December 14, 1992; #2 - PSD-FL-185]

A.7. Sulfur dioxide (SO2) emissions shall not exceed:

a. while firing natural gas:

40.0 lbs./hour (see note #1); 175.2 TPY (see note #2)

b. while firing distillate fuel oil:

0.05 % sulfur content by weight (see note #1); 70.0 lbs./hour (see note #1); 14 TPY
(see note #2).

[Notes: #1 - BACT Determination dated December 14, 1992; #2 - PSD-FL-185]

A.8. Nitrogen oxides (NOx) emissions shall not exceed:

a. while firing natural gas:

15 ppmvd @15% O2, 24-hour block average (see note #1);

9 ppmvd @ 15% O2, 12-month rolling average;

78.6 lbs./hour (see note #2); and,

177 TPY; combined total of natural gas and distillate fuel oil firing (see note #2 and
#4);

b. while firing distillate fuel oil:

42 ppmvd @15% O2, 24-hour block average (see note #1);

230.0 lbs./hour (see note #2);

46 TPY (see note #2); and,

177 TPY; combined total of natural gas and distillate fuel oil firing (see note #2 and
#4).

c. 24-hour block averages: 24-hour block averages are calculated as follows:

At the same time each day, a 24-hour block average shall be calculated for the monitored operating hours in the previous 24-hour period. The 24-hour block average shall be determined by summing the hourly average NO_x concentrations for all valid monitored operating hours and dividing by the number of hourly average NO_x concentrations in the previous 24-hour period. A monitored operating hour is each hour in which fuel is fired in the combustion turbine and at least two continuous emissions monitoring systems (CEMS) emission measurements are recorded at least 15 minutes apart. CEMS data taken during periods of: 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, or during CEMS quality assurance checks or when the CEMS is out of control shall be excluded from the 24-hour block average.

- d. For the annual (TPY) emissions limits of NO_x, 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.
- e. For the 9 ppmvd annual equivalent emissions limit measurements shall be in ppmvd and be based on a 12-month rolling average starting at the first day of each calendar month. Each monthly average shall be calculated by adding each valid gas firing 24-hour block average (as determined above) from valid operating days within the calendar month. This monthly average shall be combined with the emissions from the previous valid 11 calendar months and shall comprise a 12-month rolling average.

In order to convert each 12-month rolling average to an annual equivalent limit, the following formula shall be utilized:

$$\text{ppmvd}_e = \text{ppmvd}_a * [\text{hours}_g / 8760] \quad \text{where:}$$

ppmvd_e = the equivalent annual NO_x average (ppmvd corrected to 15% O₂)
ppmvd_a = the measured (CEMS) 12-month rolling NO_x average (ppmvd corr. to 15% O₂) while firing only natural gas
hours_g = 12-month rolling total valid hours of operation combusting natural gas

[Notes: #1 - BACT Determination dated December 14, 1992; note #2 - PSD-FL-185; note #4 - 1050221-004-AC; Air Construction Permit 1050221-010-AC]

A.9. Volatile organic compound (VOC) emissions shall not exceed

- a. while firing natural gas: 6.0 lbs./hour (see note #1); 26.3 TPY (see note #2); and
b. while firing distillate fuel oil: 10.0 lbs./hour (see note #1); 2.0 TPY (see note #2).

[Notes: #1 - BACT Determination dated December 14, 1992; #2 - PSD-FL-185]

A.10. Carbon monoxide (CO) emissions shall not exceed

- a. while firing natural gas: 21 ppmvd @ minimum load (see note #2); 15 ppmvd @ base load (see note #2); 43.5 lbs./hour (see note #1); 190.5 TPY (see note #2). and
b. while firing distillate fuel oil: 25 ppmvd (see note #2); 73.0 lbs./hour (see note #1); 14.6 TPY (see note #2).

[Notes: #1 - BACT Determination dated December 14, 1992; #2 - PSD-FL-185]

A.11. <reserved>

Excess Emissions

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

A.12. Excess emissions from this emissions unit resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. Additionally, the permittee's record-keeping for EU-001 and EU-006 NO_x emissions caps (TPY)

shall be in full agreement with publicly available data on EPA's Acid Rain website which includes all documented exclusions reported to the Department in a quarterly report. However these emissions will be excluded for compliance demonstration.
[Rule 62-210.700(1), F.A.C.]

A.13. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

A.14. At all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
[40 CFR 60.11(d)]

A.15. 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_x emissions shall install and 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. The NO_x CEMS will be used in lieu of the water/fuel monitoring system, which are required in 40 CFR 60.334. The permitted will continuously monitor and record the water/fuel ratio as a backup method for ensuring compliance when the NO_x CEMS is unavailable.
[40 CFR 60.334(a); PSD-FL-185, Air Construction Permit 1050221-010-AC]

A.16. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG shall monitor sulfur content of the fuel being fired in the turbine. The owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in Sec. 60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:

(i) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or

(ii) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required.
[40 CFR 60.334(h) and Air Construction Permit 1050221-010-AC]

A.17. Determination of Process Variables.

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such

data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

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

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.18. Visible Emissions (VE). The test method for VE shall be EPA Method 9, incorporated by reference in Chapter 62-297, F.A.C.

[Rules 62-213.440, 62-297.310, and 62-297.401, F.A.C.; and, PSD-FL-185, revised March 18, 1996]

A.19. Particulate Matter Ten (PM10). The test methods for PM10 emissions, for distillate fuel oil-firing only, shall be Methods 5, 17, 201, or 201A, incorporated by reference in Chapter 62-297, F.A.C.

[Rules 62-213.440, 62-297.310, and 62-297.401, F.A.C.; and, PSD-FL-185, revised March 18, 1996]

A.20. In lieu of the NOx emissions calculations based on nitrogen content, a NOx CEMS will be installed.

[40 CFR 60.335(a)]

A.21. <Reserved>

A.22. a. The owner or operator shall determine compliance with the nitrogen oxides and sulfur dioxide standards in 40 CFR 60.332 as follows: U.S. EPA. Method 20 (40 CFR 60, Appendix A) shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations, or EPA Method 7E and either EPA Method 3 or 3A in Appendix A to this part, to determine NOx and diluent concentrations.

b. For purposes of demonstrating compliance with the NOx emission limits (in lbs/hr and tons/yr) specified in Condition A.8, EPA Method 20 (at 90 - 100% of permitted maximum capacity load only), the relative accuracy (RA) test data pursuant to 40 CFR 60 Appendix B Performance Specification 2 Section 7, or EPA Method 7E and either EPA Method 3 or 3A in Appendix A to this part, to determine NOx and diluent concentrations shall be used. **The NOx CEMS shall be used for the purpose of demonstrating continuous compliance with the NOx emission limit (24-hour block average concentration limit) specified in Condition A.8.**

c. For purposes of demonstrating compliance with the annual (TPY) NOx limit see Condition A.8.

d. The owner or operator must comply with all applicable conditions of 40 CFR 60.334. [40 CFR 60.334; PSD-FL-185, 1050221-004-AC, and 1050221-010-AC]

A.23. The owner or operator shall determine compliance with the sulfur content standard of 0.05 percent, by weight, as follows: ASTM D129-91; D1552-90; D2280-71; D2880-96; D2622-92;

D4292; D4294-90; or the latest edition(s) shall be used to determine the sulfur content of liquid fuels and ASTM D1072-80, 90, 94; D3031-81, 86; D3246-81, 92; D4084-82, 94; D4468-85; D5504-94; or the latest edition(s) shall be used for the sulfur content of gaseous fuels (incorporated by reference-see 40 CFR 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator.
[40 CFR 60.335; PSD-FL-185]

A.24. <Reserved>

A.25 Volatile organic compound (VOC). Compliance with the VOC standard shall be demonstrated using EPA Method 25A. Testing is only required prior to the Title V permit renewal.

[Rules 62-213.440, 62-297.310, and 62-297.401, F.A.C.; and, PSD-FL-185, revised March 18, 1996, Air Construction Permit 1050221-010-AC]

A.26. Carbon monoxide (CO). Compliance with the CO standard shall be demonstrated using EPA Method 10.

[Rules 62-213.440, 62-297.310, and 62-297.401, F.A.C.; and, PSD-FL-185, revised March 18, 1996]

A.27. <reserved>

A.28. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

A.29. Operating Rate During Testing.

a. This emissions unit shall operate between 90% and 100% of permitted capacity during the compliance test(s) as adjusted for ambient temperature (compressor inlet temperature) (See attached W501D5 ECONOPAC SYSTEM PERFORMANCE GRAPH, CURVE LABELED "POWER" - FIGURE 2.)

b. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[PSD-FL-185; and, Rule 62-297.310(2), F.A.C.]

A.30. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

A.31. Applicable Test Procedures.

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.

Exceptions to these requirements are as follows:

a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.

b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in TABLE 297.310-1, CALIBRATION SCHEDULE (attached).

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

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

A.32. The permittee shall comply with the requirements contained in APPENDIX SS-1, Stack Sampling Facilities, attached to this permit.

[Rule 62-297.310(6), F.A.C.]

A.33. Frequency of Compliance Tests. The following provisions apply only to the combustion turbine system and only for the pollutants listed in Conditions A.4 through A.11 for which compliance testing is required.

(a) Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting

standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. A compliance test shall be conducted for nitrogen oxides/oxygen, volatile organic compounds, and carbon monoxide prior to obtaining a renewed operation permit. Compliance testing is only required during the combustion of natural gas fuel. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- a. Did not operate; or
 - b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.
4. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions (VE);
 - b. Carbon monoxide (CO); and
5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a baghouse or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; SIP approved; PSD-FL-185]

A.34. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the

test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
 2. The facility at which the emissions unit is located.
 3. The owner or operator of the emissions unit.
 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
 8. The date, starting time and duration of each sampling run.
 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
 10. The number of points sampled and configuration and location of the sampling plane.
 11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
 12. The type, manufacturer and configuration of the sampling equipment used.
 13. Data related to the required calibration of the test equipment.
 14. Data on the identification, processing and weights of all filters used.
 15. Data on the types and amounts of any chemical solutions used.
 16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
 17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
 18. All measured and calculated data required to be determined by each applicable test procedure for each run.
 19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
 20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
 21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.
- [Rule 62-297.310(8), F.A.C.]

Record Keeping and Reporting Requirements

A.35. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as follows:

- a. *Nitrogen Oxides.* Any period during which the NO_x emissions exceed the limits listed in Condition A.8. The NO_x CEMS will be used in lieu of the water/fuel monitoring system, which

are required in 40 CFR 60.334. The NO_x CEMS shall be used to report excess emissions during periods of startup, shutdown, and malfunction in lieu of FBN monitoring and the water/fuel monitoring system described in 40 CFR 60.334 above and beyond best operating practices. However these emissions will be excluded for compliance demonstration.

b. *Sulfur dioxide*. Any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.05 percent by weight.

[40 CFR 60.334; PSD-FL-185, Air Construction Permit 1050221-010-AC]

A.36. The owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

[40 CFR 60.7(c)(1), (2), (3), and (4)]

A.37. The summary report form shall contain the information and be in the format shown in FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

[40 CFR 60.7(d)(1) and (2)]

A.38. (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following

conditions are met:

(i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;

(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and

(iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2).

[40 CFR 60.7(e)]

A.39. Any owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least 5 (five) years following the date of such measurements, maintenance, reports, and records.

[40 CFR 60.7(f); Rule 62-213.440(1)(b)2.b., F.A.C.]

A.40. Malfunction Reporting. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

Miscellaneous Requirements

A.41. Definitions. For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60, shall apply except that the term "Administrator" when used

in 40 CFR 60, shall mean the Secretary or the Secretary's designee.
[40 CFR 60.2; and, Rule 62-204.800(7)(a), F.A.C.]

A.42. Circumvention. No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.
[40 CFR 60.12]

A.43. <reserved>

A.44. Plant Operations- Problems: If temporarily not able to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind, or other cause, the permittee shall notify the Compliance Authority as soon as possible, but at least with in one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problems; steps being taken to correct the problem and prevent future reoccurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. A written report shall be provided in the quarterly report, as requested by the department.

Subsection B. This section addresses the emissions unit(s).

E.U.

<u>ID No.</u>	<u>Brief Description</u>
-002	Fuel oil storage tanks (2)

The facility operates two 623,280 gallon distillate (No. 2) fuel oil storage tanks referred to as "STR-001" and "STR-002". Each tank has a fixed cone roof and is equipped with pressure/vacuum conservation vents.

{Permitting note: These emissions units are 'unregulated emissions units.' The tanks are subject to a recordkeeping requirement under NSPS - 40 CFR 60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels; adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.}

The following conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

B.1. Hours of Operation. These emissions units are allowed to operate continuously, i.e., 8,760 hours/year.

[Rule 62-4.160(2), F.A.C. and Rule 62-210.200, F.A.C., Definitions - (PTE)]

Recordkeeping Requirements

B.2. The permittee shall maintain records on site for storage vessels identification numbers STR-001 and STR-002 to include the date of construction, the material storage capacity, and type of material stored for the life of these storage vessels.

[40 CFR 60.116b(b)]

Subsection C. This section addresses the following emissions unit.

<u>E.U.</u>	<u>Brief Description</u>
<u>ID No.</u>	

-006	Simple Cycle Combustion Turbine
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This unit is a Siemens Westinghouse 501D5A combustion turbine (CT) configured for simple cycle operation. Water injection technology is utilized for NO_x control. Heat inputs are 1369 MMBtu/hr for natural gas and 1412 MMBtu/hr for number 2 fuel oil (0.05% S), both during ISO conditions. The combustion turbine has an electric generation capacity of a nominal 120 MW. The simple cycle unit operates in peaking service and is expected to operate near its permitted operating capacity, between 20 and 25% of available hours.

{Permitting note: This emissions unit is regulated and shall comply with Acid Rain, Phase II; NSPS - 40 CFR 60 Subpart A (60.7, 60.8, 60.11, 60.12, 60.13, 60.19), and Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C. Subpart GG provisions include a requirement to correct test data to ISO conditions; however, such corrections are not used for compliance determination with the BACT standard.}

The following conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

C.1. Permitted Capacity. The maximum heat input to the combustion turbine from firing natural gas shall not exceed 1591 MMBtu/hr based on the following: 100% base load, a higher heating value (HHV) for natural gas and a compressor inlet air temperature of 32° F. The maximum heat input to the combustion turbine from firing No. 2 fuel oil shall not exceed 1546 MMBtu/hr based on the following: 100% base load and a compressor inlet air temperature of 32° F. Heat input rates will vary depending upon ambient conditions and the combustion turbine characteristics. [Design; Rule 62-210.200, F.A.C., Definitions - (PTE)]

C.2. Methods of Operation - Fuels.

- a. Only pipeline-quality natural gas containing no more than 2 grains of sulfur per 100 dry standard feet of gas, monthly average, or distillate (No. 2) fuel oil having a maximum sulfur content of 0.05 percent by weight.
[Applicant Request, Rules 62-210.200, F.A.C. Definition - (PTE)]
- b. The combustion turbine shall utilize no more than 2,227,400 MMBtu of natural gas during any consecutive 12-month period. The total hours of operation of the combustion turbine while firing distillate fuel oil shall not exceed 400 hours per consecutive 12-month period. The permittee shall install, calibrate, operate and maintain a monitoring system to measure and accumulate the amount and heat inputs of natural gas as well as fuel oil fired and the hours of operation.

[Rule 62-4.160(2), F.A.C. and Rule 62-210.200, F.A.C., Definitions - (PTE) and 1050221-004-AC]

C.3.1 Allowable Operation.

- a. 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.

[Rule 62-4.160(2), F.A.C. and Rule 62-210.200, F.A.C., Definitions - (PTE) and 1050221-004-AC]

- b. 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);1050221-004-AC]

- c. 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_x emissions do not exceed 25.0 ppmvd @15% O₂ while burning natural gas and 42.0 ppmvd @ 15% when burning oil.

[Rule 62-212.400, F.A.C. (PSD Avoidance);1050221-004-AC, and Air Construction Permit 1050221-010-AC]

C.3.2 Wet Compression System. A wet compression system may be installed on Unit 6. The use of wet compression as an alternate means of evaporative cooling is authorized for up to 7000 hours during natural gas firing (only) for any consecutive 12-month period.
[1050221-006-AC]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

C.4. Visible emissions (VE) shall not be equal to or greater than 20% opacity.
[Rule 62.296.320(4)(b)1, F.A.C. and Permit 1050221-004-AC]

C.5. <reserved>

C.6. Particulate matter ten (PM10) emissions shall not exceed

- a. while firing natural gas:
2.9 lbs./hour; and
b. while firing distillate fuel oil:
58.5 lbs./hour.

[Rule 62-212.400, F.A.C (PSD Avoidance) and Permit 1050221-004-AC]

C.7. Sulfur dioxide (SO₂) emissions shall not exceed

- a. while firing natural gas:
2 grains / 100 scf, monthly average; and
b. while firing distillate fuel oil:

0.05 % sulfur content by weight, and
74.9 lbs./hour.

[Rule 62-4.070(3), F.A.C and Permit 1050221-004-AC]

C.8. Nitrogen oxides (NO_x) emissions shall not exceed

- a. while firing natural gas:
25.0 ppmvd @15% O₂, 24-hour block average;
- b. while firing distillate fuel oil:
42.0 ppmvd @15% O₂, 24-hour block average;
- c. Unit Total:
115 TPY;

[Rule 62-212.400, F.A.C. (PSD Avoidance), Air Construction Permit 1050221-004-AC, and Air Construction Permit 1050221-010-AC]

C.9. Volatile organic compound (VOC) emissions shall not exceed

- a. while firing natural gas: 4.0 ppmvd @15% O₂; and
- b. while firing distillate fuel oil: 5.0 ppmvd @ 15% O₂.

[Rule 62-4.070(3), F.A.C and Permit 1050221-004-AC]

C.10. Carbon monoxide (CO) emissions shall not exceed:

- a. 10 ppmvd @ 15% O₂ @ base load (at full output of the emissions unit); and
- b. 99 TPY, based on a 12-month rolling average, while burning all fuels.

[Rule 62-212.400, F.A.C. (PSD Avoidance), Air Construction Permit 1050221-004-AC and Air Construction Permit 1050221-010-AC]

C.11. <reserved>

Excess Emissions

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

C.12. 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 continuous emissions monitor (CEM) shall monitor and record emissions. Monitoring data exclusions shall be accordance with Condition C.15. of this permit.
- 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.

[Design; Rules 62-210.700(1),(5), 62-4.130, F.A.C. and Air Construction Permit 1050221-010-AC]

C.13. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. These emissions shall be included in the calculation of the 12-month rolling and 24-hour averages to demonstrate compliance with the continuous emissions standards.

[Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

C.14. Best operational practices shall be used to minimize hourly emissions that occur during episodes of startup, shutdown and malfunction. Emissions of any quantity or duration that occur entirely or in part from poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented, shall be prohibited.

[Rule 62-210.700, F.A.C.]

C.15. Continuous Monitoring Systems (CMS)

- a. 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_x emissions shall install and 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.
- b. The owner or operator shall calibrate, maintain, and operate a continuous emission monitoring (CEM) system 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 (O₂) 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 CEM system shall be used to demonstrate compliance with the emission limits for NO_x and CO within this permit.
- c. **Certification:** The NO_x monitor shall be certified and operated in accordance with the following requirements. The NO_x 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. The RATA tests required for the NO_x monitor shall be performed using EPA Method 20 or 7E, of Appendix A of 40 CFR 60. The NO_x monitor shall be a dual range monitor. The span for the lower range shall not be greater than 30 ppm, and the span for the upper range shall not be greater than 100 ppm, as corrected to 15% O₂. The CO monitor and O₂ monitor shall be certified and operated in accordance with the following requirements. The CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4. The O₂ 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 Department's Southwest District Office. 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 ppm, as corrected to 15% O₂. The RATA tests required for the O₂ monitor shall be performed using EPA Method 3B, of Appendix A of 40 CFR 60. The span for the O₂ monitor shall not be greater than 21 percent.
- d. For purposes of determining compliance with the 24-hour block average emission limits of this permit, 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_x emissions caps (TPY) 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 TPY calculations for netting purposes and as required by the Acid Rain website.

- e. NO_x/CO CEMS Data Requirements: NO_x, CO and O₂ emissions data shall be recorded by the CEM system during episodes of startup, shutdown and malfunction. No valid monitoring data shall be excluded from the mass-based (TPY) CO and NO_x emissions limits. Monitoring data collected during startup, shutdown and malfunctions may be excluded in accordance with the following conditions when determining compliance with concentration-based (ppmvd) CO and NO_x emissions limits. NO_x and CO emissions data recorded during these episodes may be excluded from the 24-hour block average calculated to demonstrate compliance with the emission limits of this permit as provided in this paragraph. Periods of data excluded for startup and shutdown shall not exceed two hours in any block 24-hour period. Periods of data excluded for malfunctions shall not exceed two hours in any 24-hour block period. 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 in any 24-hour block period. 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.

[Rules 62-4.070(3) and 62-212.400., F.A.C., Rule 62-212.400, F.A.C. (PSD Avoidance);1050221-004-AC]

[Note: Compliance with these requirements will ensure compliance with the other CEM system requirements of this permit to comply with Subpart GG requirements, as well as the applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.7(a)(5) and 40 CFR 60.13, and with 40 CFR Part 51, Appendix P, 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60, Appendix F, Quality Assurance Procedures.]

- e. 24-hour block averages: 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 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). 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 CEM system 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 CEM system shall be expressed as ppmvd, corrected to 15% oxygen. CEMS data taken during periods of: 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, or during CEMS quality assurance checks or when the CEMS is out of control shall be

- excluded from the 24-hour block average; and
- f. Annual (TPY) emissions limits: For the annual (TPY) emissions limits of CO and NO_x, 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. Alternate Monitoring Plan: 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 CEM shall be used to report excess emissions in accordance with 40 CFR 60.334(c)(1) of NSPS, Subpart GG.

[Air Construction Permit 1050221-004-AC and Air Construction Permit 1050221-010-AC]

C.16. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in Sec. 60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:

- (i) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or

- (ii) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required.

[40 CFR 60.334(h)]

C.17. Determination of Process Variables.

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

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

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

C.18. Visible Emissions (VE). The test method for annual compliance testing shall be EPA

Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
[Rule 62-204.800, F.A.C. and Rule 62.297.620, F.A.C.]

C.19. Particulate Matter/Particulate Matter Ten (PM/PM₁₀). Continuous emissions of PM/PM₁₀ shall be limited by the use of pipeline-quality natural gas containing no more than 2 grain per standard cubic feet, the use of 0.05% sulfur oil and good combustion techniques as specified in this permit. The permittee shall demonstrate compliance with the oil and gas fuel sulfur limits by maintaining the records specified by this permit.
[Rule 62-212.400, F.A.C.]

C.20. <reserved>

C.21. <reserved>

C.22. NOx Compliance Demonstration

- a. The NOx CEMS shall be used to determine compliance with the emissions limits specified in Condition C.8.
- b. The permittee shall conduct an annual RATA test at 100% output in accordance with the applicable CEMS requirements.

[40 CFR 60.335, Air Construction Permit 1050221-004-AC, and Air Construction Permit 1050221-010-AC]

C.23. The permittee shall demonstrate compliance with the fuel sulfur limit for natural gas specified in this permit by maintaining records of the sulfur content of the natural gas being supplied for each month of operation. The owner or operator shall determine compliance with the sulfur content standard of 0.05 percent, by weight, as follows: ASTM D129-91; D1552-90; D2280-71; D2880-96; D2622-92; D4292; D4294-90; or the latest edition(s) shall be used to determine the sulfur content of liquid fuels and ASTM D1072-80, 90, 94; D3031-81, 86; D3246-81, 92; D4084-82, 94; D4468-85; D5504-94; or the latest edition(s) shall be used for the sulfur content of gaseous fuels. 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 SO₂ standard.
[Rules 62-4.070(3) and 62-4.160(15), F.A.C.1050221-004-AC]

C.24. <Reserved>

C.25 Volatile organic compound (VOC). The permittee shall demonstrate compliance with these standards by conducting tests in accordance with EPA Method 25A and the performance testing requirements of this permit. 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.
[Rule 62-204.800, F.A.C, and Rule 62-297.620, F.A.C.]

C.26. Carbon monoxide (CO).

- a. The NOx CEMS shall be used to determine compliance with the emissions limits specified in Condition C.8.

- b. The permittee shall conduct an annual RATA test at 100% output in accordance with the applicable CEMS requirements.

[Rule 62-204.800, F.A.C, Rule 62-297.620, F.A.C. and Air Construction Permit 1050221-010-AC]

C.27. <reserved>

C.28. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

C.29. Operating Rate During Testing.

Other required performance tests for compliance with standards specified in this permit 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 percent represented by a curve depicting heat input vs. ambient temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. However, subsequent operation is limited by adjusting the entire heat input vs. ambient temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for inlet temperature) and 110 percent of the value reached during the test until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity. Emissions performance tests shall meet all applicable requirements of Chapters 62-204 and 62-297, F.A.C.

[Rule 62-297.310(2), F.A.C.]

C.30. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

C.31. Applicable Test Procedures.

a. **Required Sampling Time.**

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. [Rule 62-297.310(4)(a)1., F.A.C.]
2. The minimum observation period for a visible emissions compliance test shall be

sixty (60) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur. [Rule 62-297.310(4)(a)2., F.A.C.]

- b. Minimum Sample Volume. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet. [Rule 62-297.310(4)(b), F.A.C.]
- c. Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.

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

C.32. The permittee shall comply with the requirements contained in APPENDIX SS-1, Stack Sampling Facilities, attached to this permit.

[Rule 62-297.310(6), F.A.C.]

C.33. Frequency of Compliance Tests. The following provisions apply only to the combustion turbine system and only for the pollutants listed in Conditions C.4 through C.11 for which compliance testing is required.

a. Compliance Testing.

- 1. Prior to renewing the air operation permit, the permittee shall conduct performance tests for CO, NO_x, 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. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
 - i. Did not operate; or
 - ii. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.

[Rule 62-297.310(7)(a)3., F.A.C.]

- 2. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
 - i. Visible emissions (VE);
 - ii. Carbon monoxide (CO); and
 - iii. Nitrogen Oxide (NO_x).
- 3. The permittee shall notify the Compliance Authority in writing at least 30 days prior to initial NSPS performance tests and at least 15 days prior to any other required tests.

[40 CFR 60.7, 40 CFR 60.8 and Rule 62-297.310(7)(a)9., F.A.C.]

- b. Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

[Rule 62-297.310(7)(b), F.A.C.]

- c. Waiver of Compliance Test Requirements. If the owner or operator of an emissions

unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a baghouse or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; SIP approved; PSD-FL-185]

- d. Sampling Facilities: The permittee shall design the combustion turbine stack to accommodate adequate testing and sampling locations in order to determine compliance with the applicable emission limits specified by this permit. Permanent stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C. [Rules 62-4.070 and 62-204.800, F.A.C., and 40 CFR 60.40a(b)]
- e. 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.
[Rule 62-297.310(7)(a)4., F.A.C.]
- f. 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. Annual RATA testing at 100% output may be utilized to satisfy the annual requirements for CO and NO_x tests. No other methods may be used for compliance testing unless prior DEP approval is received, in writing from the Department.
[Air Construction Permit 1050221-010-AC]

C.34. Test Reports: A report indicating the results of any required emissions performance test shall be submitted to the Compliance Authority no later than 45 days after completion of the last test run. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C.
[Rule 62-297.310(8), F.A.C.].

Record Keeping and Reporting Requirements

C.35. Annual (12-month rolling total) NO_x 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]

C.36. 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_x and CO and amount of each fuel fired for the combustion turbine. Likewise, by the fifth calendar day of each month, the 12-month emission totals for the NO_x requirements that have been placed upon the existing EU-001 by this permit shall be recorded. 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]

C.37. Following the NSPS format in 40 CFR 60.7, Subpart A, FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE (attached), periods of startup, shutdown and malfunction, shall be monitored, recorded and reported as excess emissions when emission levels exceed the standards specified in this permit. Within thirty (30) days following each calendar quarter, the permittee shall submit a report on any periods of excess emissions that occurred during the previous calendar quarter to the Compliance Authority.

[Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C., and 40 CFR 60.7

C.38. <reserved>

C.39. <reserved>

C.40. Malfunction Reporting. If excess CO, NO_x or visible emissions occur due to malfunction, the permittee shall notify the Compliance Authority within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident.

Miscellaneous Requirements

C.41. <reserved>

C.42. <reserved>

C.43. <reserved>

Subsection D. This section addresses the following emissions unit(s).

<u>E.U. ID No.</u>	<u>Brief Description</u>
-007	170 Megawatt Gas Combustion Turbine-Electrical Generator
-008	170 Megawatt Gas Combustion Turbine-Electrical Generator
-009	Duct Burner with Supplementary HRSG
-010	Duct Burner with Supplementary HRSG
Respective Permittee: Calpine Construction Finance Company, L.P.	

These units are combined cycle combustion turbine (CT) systems with each combined cycle system consisting of one 170 MW Siemens Westinghouse "F" Class (501FD) combustion turbine (CT) with one shared 200 MW steam turbine-generator, and one Heat Recovery Steam Generators (HRSG). Each 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 emission. Continuous Emissions Monitors Systems are used to determine compliance with all NO_x emission limits. The two HRSG have 250 MMBtu duct burners for supplemental firing and to achieve peak output. The Duct Burner can only fire pipeline natural gas. Low NO_x burners (LNB) are used to control NO_x emissions. CEMS serves as continuous compliance determination, therefore CAM does not apply.

{Permitting note: Emissions units 007 and 008 are regulated under Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; Rule 212.400, F.A.C., Prevention of Significant Deterioration (PSD) and Best Available Control Technology (BACT). Emissions units 009 and 010 are regulated under 40 CFR 60, Subpart Da, Standards for Performance for Electric Utility Steam Generating Units for Units Constructed After September 18, 1978, adopted and incorporated by reference in Rule 62-204.800(7), and PSD-FL-287/Air Construction Permit 1050334-001-AC }

The following conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

D.1. Combustion Turbine Capacity: The maximum heat input rates, based on the lower heating value (LHV) of the fuel to this Unit at ISO conditions shall not exceed 1,669 million Btu per hour (mmBtu/hr) when firing natural gas without power augmentation. This 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 provided to the Department of Environmental Protection (DEP) within 45 days of completing the initial compliance testing.

[Design, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions), PSD-FL-287/Air Construction Permit 1050334-001-AC]

D.1. Heat Recovery Steam Generator equipped with Duct Burner. The maximum heat input rate of the natural gas fired duct burner shall not exceed 250 MMBtu/hour (LHV). [Applicant Request, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]

D.2. Fuels: Only pipeline natural gas shall be fired in these units.

[Applicant Request, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions), and PSD-FL-287/Air Construction Permit 1050334-001-AC]

D.3. Maximum allowable hours of operation for the 527 MW Combined Cycle Plant are 8760 hours per year while firing natural gas. Fuel oil firing of the combustion turbine is not permitted. [Applicant Request, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions), and PSD-FL-287/Air Construction Permit 1050334-001-AC]

D.4. Simple Cycle Operation: The plant may not be operated without the use of the SCR system except during periods of startup and shutdown.
[PSD-FL-287/Air Construction Permit 1050334-001-AC]

Emission Limitations and Standards

D.5.1. Nitrogen Oxides (NO_x) Emissions:

- The concentration of NO_x in the stack exhaust gas, with the combustion turbine operating, the duct burner on or off, shall not exceed 3.5 ppmvd @15% O₂ on a 24-hr block average. This limit shall apply whether or not each unit is operating with duct burner on and/or in power augmentation mode. Compliance shall be determined by the continuous emission monitoring system (CEMS).
[PSD-FL-287/Air Construction Permit 1050334-001-AC]
- The emissions of NO_x shall not exceed 27.5 lb/hr (at 95°F ambient temperature) while operating in the power augmentation mode with the duct burner on, to be demonstrated by annual stack test.
[PSD-FL-287/Air Construction Permit 1050334-001-AC]
- The concentration of ammonia in the exhaust gas from each CT/HRSG shall not exceed 9.0 ppmvd @15% O₂. The compliance procedures are described in Specific Conditions E.19 and E.28. [BACT, Rules 62-212.400 and 62-4.070, F.A.C.; Air Construction Permit 1050334-001-AC]
- The owner or operator shall install a NO_x CEMS to meet the requirements of part 75 of this chapter, and is continuing to meet the ongoing requirements of part 75 of this chapter, the CEMS may be used to meet the requirements of this section, except that the missing data substitution methodology provided for at 40 CFR part 75, subpart D, is not required for purposes of identifying excess emissions. Instead, periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance report required in Sec. 60.7(c). Part 75 missing data, start up, and shutdown emissions as defined in Specific Condition D.21 will not be included in the day ppmvd averages.
- Part 75 missing data, start up and shutdown emissions as defined in Condition 30 of this permit will not be included in the daily ppmvd averages.

[40 CFR 60.334(b)(3)(iii); PSD-FL-287/Air Construction Permit 1050334-001-AC and Air Construction Permit 1050221-010-AC]

D.5.2. NO_x Emissions- Duct Burner:

- Emissions of NO_x from the duct burner shall not exceed 0.1 lb/MMBtu, which is more stringent than the NSPS (see Specific Condition D.17).
- When NO_x monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate any specified average time. Part 75 missing data, start up and shutdown emissions as defined in Condition 30 of this permit will not be included in the daily ppmvd averages.

[PSD-FL-287/Air Construction Permit 1050334-001-AC and Air Construction Permit 1050221-010-AC]

D.6. Carbon Monoxide (CO) Emissions: Emissions of CO in the stack exhaust gas (at ISO conditions) with the combustion turbine operating on gas shall exceed neither 10 ppmvd @15% O₂ on a 24-hr block average to be demonstrated by CEMS for those days when no valid hour includes the use of duct burner firing, power augmentation or operation below 30% excluding periods of startup and shutdown nor 17 ppmvd @15% O₂ on a 24-hr block average for those days when at least one valid hour includes the use of duct burner firing, power augmentation or operation below 30% excluding periods of start-up and shutdown to be demonstrated by CEMS and by annual stack test using EPA Method 10 or through annual RATA testing. [PSD-FL-287/Air Construction Permit 1050334-001-AC, Rule 62-212.400, F.A.C., Air Construction Permit 1050334-006-AC, Air Construction Permit 1050334-007-AC, Air Construction Permit 1050221-010-AC, and PA00-41]

D.7. Volatile Organic Compounds (VOC) Emissions: Emissions of VOC in the stack exhaust gas (baseload at ISO conditions) with the combustion turbine operating on gas shall exceed neither 2.3 ppmvd @15% O₂ nor 5.8 lb/hr per unit with the duct burner off and neither 4.6 ppmvd @15% O₂ nor 12.4 lb/hr per unit with the duct burner on and operating in the power augmentation mode to be demonstrated by initial stack test using EPA Method 18, 25 or 25A. [PSD-FL-287/Air Construction Permit 1050334-001-AC, Rule 62-212.400, F.A.C.]

D.8. Sulfur Dioxide (SO₂) emissions: SO₂ emissions shall be limited by firing pipeline natural gas (sulfur content not greater than 2 grains per 100 standard cubic foot). Compliance with this requirement in conjunction with implementation of the Custom Fuel Monitoring Schedule in Specific Condition 43 will demonstrate compliance with the applicable NSPS SO₂ emissions limitations from the duct burner or the combustion turbine. Note: This will effectively limit the combined SO₂ emissions for EU-007 and EU-008 at 95.4 tons per year. [PSD-FL-287/Air Construction Permit 1050334-001-AC, 40CFR60 Subpart GG and Rules 62-4.070, 62-212.400, and 62-204.800(7), F.A.C.]

D.9. PM/PM₁₀ and Visible emissions (VE): VE emissions shall not exceed 10 percent opacity from the stack in use. PM/PM₁₀ emissions from each combustion turbine and HRSG train shall not exceed 24.1 lb/hr at 100% output with the duct burner on and operating in the power augmentation mode to be demonstrated by initial stack test using EPA Method 5. [PSD-FL-287/Air Construction Permit 1050334-001-AC, Rules 62-4.070, 62-212.400, and 62-204.800(7), F.A.C.]

Excess Emissions

D.10. 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 in any 24-hour period 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 of excess emissions are allowed. During shutdowns from combined cycle operation, up to three hours 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. Operation below 30% output per turbine shall otherwise be limited to 2 hours in any 24-hour period. [Rule 62-210.700, F.A.C., PSD-FL-287/Air Construction Permit 1050334-001-AC, Air Construction Permit 1050334-006 and PA00-41]

D.11. Excess emissions entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction, shall be prohibited pursuant to Rule 62-210.700, F.A.C. These emissions shall be included in the 24-hr average for NO_x and the 24-hr average for CO.
[PSD-FL-287/Air Construction Permit 1050334-001-AC]

D.12. Excess Emissions Report: If excess emissions occur for more than two hours due to malfunction, the owner or operator shall notify DEP's Southwest District office within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, all excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. Following this format, 40 CFR 60.7, and using the monitoring methods listed in Specific Conditions D.14. through D.18., periods of startup, shutdown, malfunction, shall be monitored, recorded, and reported as excess emissions when emission levels exceed the permitted standards listed in Specific Condition D.5. through D.9.
[Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C., and 40 CFR 60.7 and PSD-FL-287/Air Construction Permit 1050334-001-AC]

Monitoring of Operations

D.13. At all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
[40 CFR 60.11(d)]

D.14. Continuous Monitoring System: The permittee shall install, calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxides and carbon monoxide from these units. Periods when emissions (ppmvd @ 15% oxygen) are above the permitted limits, listed in Specific Conditions No. D.5. and D.6. shall be reported to the DEP Southwest District Office in accordance with the requirements of Specific D.31.
[Rules 62-204.800, 62-210.700, 62-4.130, 62-4.160(8), F.A.C and 40 CFR 60.7, and PSD-FL-287/Air Construction Permit 1050334-001-AC].

D.15. CEMS for reporting excess emissions: The CEMS shall be used in lieu of the requirement for reporting excess emissions in accordance with 40 CFR 60.334, Subpart GG. 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.
[PSD-FL-287/Air Construction Permit 1050334-001-AC]

D.16. 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

40CFR75. The monitoring plan, consisting of data on CEM equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location shall be provided to the DEP Bureau of Ambient Monitoring & Mobile Sources (BAMMS) as well as the EPA for review no later than 45 days prior to the first scheduled certification test pursuant to 40 CFR 75.62.

[PSD-FL-287/Air Construction Permit 1050334-001-AC]

D.17. Natural Gas Monitoring Schedule: A custom fuel monitoring schedule pursuant to 40 CFR 75 Appendix D for natural gas may be used in lieu of the daily sampling requirements of 40 CFR 60.334 (b)(2) provided the following requirements are met:

- The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30.
- The permittee shall submit a monitoring plan, certified by signature of the Designated Representative, that commits to the sole use of pipeline supplied natural gas (sulfur content less than 20 gr/100 scf pursuant to 40 CFR 75.11(d)(2)) for the CT's.
- Each unit shall be monitored for SO₂ emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USEPA.

[PSD-FL-287/Air Construction Permit 1050334-001-AC]

D.18. Determination of Process Variables:

- The permittee shall operate and maintain equipment and/or instruments necessary to determine process variables, such as process weight input or heat input, when such data is needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards. No later than 90 days prior to operation, the permittee shall submit for the Department's approval a list of process variables that will be measured to comply with this permit condition.
- Equipment and/or instruments used to directly or indirectly determine such process variables, including devices such as belt scales, weigh hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value [Rule 62-297.310(5), F.A.C.]

[PSD-FL-287/Air Construction Permit 1050334-001-AC]

D.19. Subpart Da Monitoring and Recordkeeping Requirements: The permittee shall comply with all applicable requirements of this Subpart [40CFR60, Subpart Da].

Test Methods and Procedures

D.20. Annual compliance tests shall be performed during every federal fiscal year (October 1 - September 30) pursuant to Rule 62-297.310(7), F.A.C., on these units as indicated. The following reference methods shall be used. No other test methods may be used for compliance testing unless prior DEP approval is received in writing. Where initial tests only are indicated, these tests shall be repeated prior to renewal of each operation permit.

- EPA Reference Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources".
- EPA reference Method 5, "Determination of Particulate Emissions from Stationary Sources." Initial test only.

- EPA Reference Method 10, "Determination of Carbon Monoxide Emissions from Stationary Sources" or RATA test data may be used to demonstrate compliance with the annual test requirement. Compliance must be in accordance with specific condition D.6.
- EPA Reference Method 20, "Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines" (EPA reference Method 7E, "Determination of Nitrogen Oxides Emissions from Stationary Sources" or RATA test data may be used to demonstrate compliance for annual test requirement).
- EPA Method 320, "Measurement of vapor phase organic and inorganic emissions by extractive Fourier Transform Infrared (FTIR) Spectroscopy; or the following two methods:
- EPA Method 26A (modified) for ammonia sample collection.
- EPA Draft Method 206 for ion chromatographic analysis for ammonia.

The applicant shall calculate and report the ppmvd ammonia slip (@ 15% O₂) at the measured lb/hr NO_x emission rate as a means of compliance with the BACT standard. The applicant shall also be capable of calculating ammonia slip at the Department's request, according to Specific Condition D.28.

[PSD-FL-287/Air Construction Permit 1050334-001-AC, Air Construction Permit 1050334-007-AC, Air Construction Permit 1050221-010-AC, and PA00-41]

D.21. Continuous compliance with the CO and NO_x emission limits: Continuous compliance with the CO and NO_x emission limits shall be demonstrated by the CEM system on the specified hour average basis. Based on 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 Condition D.12 and 60.334. [Rules 62-4.070 F.A.C., 62-210.700, F.A.C., 40 CFR 75 and PSD-FL-287/Air Construction Permit 1050334-001-AC]

D.22. Compliance with the SO₂ and PM/PM₁₀ emission limits: For the purposes of demonstrating compliance with the 40 CFR 60.333 SO₂ standard, ASTM methods D4084-82 or D3246-81 (or equivalent) for sulfur content of gaseous fuel shall be utilized in accordance with the EPA-approved custom fuel monitoring schedule or natural gas supplier data may be submitted or the natural gas sulfur content referenced in 40 CFR 75 Appendix D may be utilized. However, the applicant is responsible for ensuring that the procedures in 40 CFR 60.335 or 40 CFR 75 are used when determination of fuel sulfur content is made. Analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335.

[PSD-FL-287/Air Construction Permit 1050334-001-AC]

D.23. Compliance with CO emission limit: An annual test for CO shall be conducted at 100% capacity with the duct burners off. The NO_x and CO test results shall be the average of three valid runs with each being at least one hour long. Annual RATA testing for the CO and NO_x CEMS shall be required pursuant to 40 CFR 75.

[PSD-FL-287/Air Construction Permit 1050334-001-AC, and Air Construction Permit 1050221-010-AC]

D.24. Compliance with the VOC emission limit: An initial test is required to demonstrate compliance with the VOC emission limit. Thereafter, the CO emission limit will be employed as a surrogate and no annual testing is required.

[PSD-FL-287/Air Construction Permit 1050334-001-AC]

D.25. 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 percent represented by a curve depicting heat input vs. ambient temperature). Procedures for these tests shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Chapters 62-204 and 62-297, F.A.C.

[PSD-FL-287/Air Construction Permit 1050334-001-AC]

D.26. Test Notification: The DEP's Southwest District office shall be notified, in writing, at least 30 days prior to the initial performance tests and at least 15 days before annual compliance tests.

[PSD-FL-287/Air Construction Permit 1050334-001-AC]

D.27. Special Compliance Tests: The DEP may request a special compliance test pursuant to Rule 62-297.310(7), F.A.C., when, after investigation (such as complaints, increased visible emissions, or questionable maintenance of control equipment), there is reason to believe that any applicable emission standard is being violated.

[PSD-FL-287/Air Construction Permit 1050334-001-AC]

D.28. Test Results: Compliance test results shall be submitted to the DEP's Southwest District office no later than 45 days after completion of the last test run.

[Rule 62-297.310(8), F.A.C., and PSD-FL-287/Air Construction Permit 1050334-001-AC].

D.29. Selective Catalytic Reduction System (SCR) Compliance Procedures:

- An annual stack emission test for nitrogen oxides and ammonia from the CT/HRSG pair shall be simultaneously conducted while operating in the power augmentation mode with the duct burner on as defined in Specific Condition D.5. The ammonia injection rate necessary to comply with the NO_x standard shall be established and reported during the each performance test.
- The SCR shall operate at all times that the turbine is operating, except during turbine start-up and shutdown periods, as dictated by manufacturer's guidelines and in accordance with this permit.
- The permittee shall install and operate an ammonia flow meter to measure and record the ammonia injection rate to the SCR system of the CT/HRSG set. It shall be maintained and calibrated according to the manufacturer's specifications.
- During the stack test, the permittee (at each tested load condition) shall determine and report the ammonia flow rate required to meet the emissions limitations. During NO_x CEM downtimes or malfunctions, the permittee shall operate at the ammonia flow rate, which was established during the last stack test.
- Ammonia emissions shall be calculated continuously using inlet and outlet NO_x 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 40CFR Part 75. The following calculation represents one means by which the permittee may demonstrate compliance with this condition:

Ammonia slip @ 15%O₂ = (A-(BxC/1,000,000)) x (1,000,000/B) x D, where:

- A = ammonia injection rate (lb/hr) / 17 (lb/lb.mol)
B = dry gas exhaust flow rate (lb/hr) / 29 (lb/lb.mol)
C = change in measured NO_x (ppmv@15%O₂) 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 ppmv limit.

- The permittee shall notify the Department within 2 business days if the calculated ammonia emissions exceed 9.0 ppmvd corrected to 15% O₂ over a 3-hour block average. The notification shall include a corrective action plan to reduce ammonia emissions below 9 ppmvd corrected to 15% O₂ 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, in order to demonstrate that all NO_x and ammonia slip related permit limits can be complied with.

[PSD-FL-287/Air Construction Permit 1050334-001-AC, Air Construction Modification 1050221-010-AC]

Record Keeping and Reporting Requirements

D.30. Records: All measurements, records, and other data required to be maintained by Calpine shall be recorded in a permanent form and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These records shall be made available to DEP representatives upon request.

[PSD-FL-287/Air Construction Permit 1050334-001-AC]

D.31. Compliance Test Reports: The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8), F.A.C.

[PSD-FL-287/Air Construction Permit 1050334-001-AC]

Miscellaneous Requirements

D.32. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the owner or operator shall notify the DEP Southwest District office as soon as possible, but at least within (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations.

[Rule 62-4.130, F.A.C., and PSD-FL-287/Air Construction Permit 1050334-001-AC]

D.33. Operating Procedures: Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific

equipment. [Rule 62-4.070(3), F.A.C., and PSD-FL-287/Air Construction Permit 1050334-001-AC]

D.34. Circumvention: The owner or operator shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rules 62-210.650, F.A.C., and PSD-FL-287/Air Construction Permit 1050334-001-AC]

Subsection E. This section addresses the emissions unit(s).

E.U. ID

No. Brief Description

-011 Cooling Tower

Respective Permittee: Calpine Construction Finance Company, LLC

The Cooling tower consists of 8 cells with individual exhaust fans.

{Permitting note: This emissions unit is an 'unregulated emissions units.'}

The following conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

E.1. Hours of Operation. These emissions units are allowed to operate continuously, i.e., 8,760 hours/year.

[Rule 62-4.160(2), F.A.C. and Rule 62-210.200, F.A.C., Definitions - (PTE)]

Emission Limitations and Standards

E.2. Drift Eliminators for PM/PM₁₀ Emissions: This emissions unit shall meet a 0.002 gallons/100 gallons recirculation water flowrate.

[PSD-FL-287/Air Construction Permit 1050334-001-AC]

E.3. Visible Emissions: VE emissions shall not exceed 20 percent opacity from the cooling tower.

[Rule 62-296.320(4)(b)(1), F.A.C.]

Test Methods and Procedures

E.4. Annual compliance tests shall be performed during every federal fiscal year (October 1 - September 30) pursuant to Rule 62-297.310(7), F.A.C., on these units as indicated. The following reference methods shall be used. No other test methods may be used for compliance testing unless prior DEP approval is received in writing. Where initial tests only are indicated, these tests shall be repeated prior to renewal of each operation permit.

- EPA Reference Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources"

[PSD-FL-287/Air Construction Permit 1050334-001-AC]

Record Keeping and Reporting Requirements

E.5. Records: All measurements, records, and other data required to be maintained by Calpine shall be recorded in a permanent form and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These records shall be made available to DEP representatives upon request.

[PSD-FL-287/Air Construction Permit 1050334-001-AC]

E.6. Compliance Test Reports: The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8), F.A.C.

[PSD-FL-287/Air Construction Permit 1050334-001-AC]

Section IV. This section is the Acid Rain Part.

Operated by: Auburndale Operating Services Company, Inc.

ORIS codes: 54658 (Auburndale Power Plant and Auburndale Peak Energy Center) and 55412 (Osprey Energy Center)

The emissions unit(s) listed below is regulated under Acid Rain Part, Phase II.

E.U. ID

<u>No.</u>	<u>Brief Description</u>
-001	Combined Cycle Combustion Turbine
-006	Simple Cycle Combustion Turbine
-007	Combined Cycle Combustion Turbine
-008	Combined Cycle Combustion Turbine

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 this Phase II acid rain unit must comply with the standard requirements and special provisions set forth in the application listed below:

a. DEP Form No. 62-210.900(1)(a), effective 04/16/01, received August 15, 2002 and August 29, 2001.

[Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

A.2. Sulfur dioxide (SO₂) allowance allocations for each Acid Rain unit is as follows:

<u>E.U. ID</u>	<u>EPA ID</u>	<u>Year</u>	2003	2004	2005	2006	2007
<u>No.</u>							
-001	1	SO ₂ allowances, under Table 2 or 3 of 40 CFR Part 73	0*	0*	0*	0*	0*
-006	6	SO ₂ allowances, under Table 2 or 3 of 40 CFR Part 73	0*	0*	0*	0*	0*
-007	CT-1	SO ₂ allowances, under Table 2 or 3 of 40 CFR Part 73	0*	0*	0*	0*	0*
-008	CT-2	SO ₂ allowances, under Table 2 or 3 of 40 CFR Part 73	0*	0*	0*	0*	0*

*The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 or 3 of 40 CFR 73.

A.3. Emission Allowances. 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.

1. 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.
2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
3. Allowances shall be accounted for under the Federal Acid Rain Program.
[Rule 62-213.440(1)(c), F.A.C.]

A.4. Fast-Track Revisions of Acid Rain Parts. Those Acid Rain sources making a change described at Rule 62- 214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, Fast-Track Revisions of Acid Rain Parts.
[Rules 62-213.413 and 62-214.370(4), F.A.C.]

A.5. Comments, notes, and justifications:

The designated representative was changed by letter dated March 28, 2002, with a revised Certificate of Authorization.



CALPINE

ISLAND CENTER

2701 N. ROCKY POINT DRIVE

SUITE 1200

TAMPA, FLORIDA 33607

813.637.7300

813.637.7399 (FAX)

August 29, 2001

Scott Sheplak
Florida Department of Environmental Protection
2600 Blairstone Road
Tallahassee, FL 32399
MS 5505

RE: Acid Rain Permit Application for Calpine Finance and Construction Company, L.P.
- Osprey Energy Center
FedEx Number: 8287 0238 8985

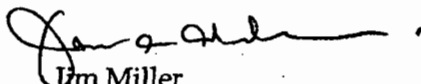
Dear Mr. Miller:

Please find the attached Acid Rain Permit Application for the proposed Osprey Energy Center to be located in Polk County, Florida. With one exception, this certificate is submitted in accordance with the provisions of Title 40, Parts 72.30 and 72.31 of the Code of Federal Regulations applicable to facilities regulated by the Acid Rain Program. This exception is in regard to the date of submission described in the regulation as the later of 24 months prior to January 1, 2000 or 24 months prior to the unit commencing operation. Due to the short period of time before the anticipated start of operation for the facility (April 2003), Calpine Finance and Construction Company, L.P. was unable to meet this deadline.

If you have any questions concerning the attached information, please call myself at (863) 965-1561 or Benjamin Borsch at (813) 637-7300.

Sincerely,

Calpine Construction Finance Company, L.P.


Jim Miller
Plant Manager

Enclosure

CC: Robert Miller, US EPA; FedEx Number 8287 0238 8996
EPA Region IV; FedEx Number 8287 0238 8952

Phase II Permit Application

Page 1

For more information, see instructions and refer to 40 CFR 72.30 and 72.31 and Chapter 62-214, F.A.C.

This submission is: ☒ New ☐ Revised

STEP 1

Identify the source by plant name, State, and ORIS code from NADB

Plant Name Osprey Energy Center

State FL

ORIS Code 55412

STEP 2 Enter the boiler ID# from NADB for each affected unit and indicate whether a repowering plan is being submitted for the unit by entering "yes" or "no" at column c. For new units, enter the requested information in columns d and e.

Compliance Plan				
a	b	c	d	e
Boiler ID#	Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	Repowering Plan	New Units Commence Operation Date	New Units Monitor Certification Deadline
CT1	Yes		Apr 1, 2003	Jul 1, 2003
CT2	Yes		Apr 1, 2003	Jul 1, 2003
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			

STEP 3

Check the box if the response in column c of Step 2 is "Yes for any unit"

☐ For each unit that will be repowered, the Repowering Extension Plan form is included and the Repowering Technology Petition form has been submitted or will be submitted by June 1, 1997.

Osprey Energy Center

Plant Name (from Step 1)

STEP 4

Read the standard requirements and certification, enter the name of the designated representative, and sign and date

Standard Requirements**Permit Requirements.**

- (1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
 - (i) Submit a complete Acid Rain part application (including a compliance plan) under 40 CFR part 72, Rules 62-214.320 and 330, F.A.C. in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
 - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain part application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain part application or a superseding Acid Rain part issued by the permitting authority; and
 - (ii) Have 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 sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

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)) 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 Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (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 deadline for monitor certification under 40 CFR part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held 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)(i) of the sulfur 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 permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.6 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance 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 required under 40 CFR part 77.
- (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 Administrator or permitting authority:
 - (i) The certificate of representation for the designated representative for the source and each Acid Rain 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-year 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;
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

Osprey Energy Center

Plant Name (from Step 1)

Recordkeeping and Reporting Requirements (cont)

(iv) Copies of all documents used to complete an Acid Rain part 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 a written exemption under 40 CFR 72.7 or 72.8, including 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 source) 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 unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.

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

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or a written exemption under 40 CFR 72.7 or 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 Rain 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 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, 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,

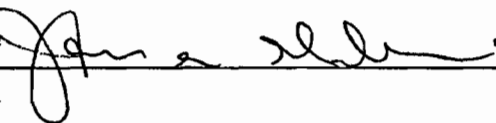
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

Certification

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 penalty of law 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 false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name **Mr. Jim Miller, Plant Manager**

Signature


Date **8-24-91**

Appendix I-1, List of Insignificant Emissions Units and/or Activities.

Auburndale Peaker Energy Center, LLC
Auburndale Power Partners, L.P.
Calpine Construction Finance Company, LP

DRAFT Permit No.: 1050221-009-AV

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, are exempt from the permitting requirements of Chapters 62-210 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rule 62-210.300(3)(a), F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rule 62-210.300(3)(a), F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

Emissions Units and/or Activities Description

1. Comfort heating with a gross maximum heat input of less than one million Btu per hour.
2. Vacuum pumps in laboratory operations.
3. Belt or Drum Sanders having a total sanding surface of five square feet or less and other equipment used exclusively on woods or plastics or their products having a density of 20 pounds per cubic foot or more.
4. Equipment used exclusively for space heating, other than boilers.
5. Laboratory equipment used exclusively for chemical or physical analyses (including fume hoods and vents).
6. Surface coating operations utilizing only coatings containing 5.0 percent or less VOCs, by volume.
7. Degreasing units using heavier-than-air vapors exclusively, except any unit using or emitting any substance classified as a hazardous air pollutant.
8. No. 2 Fuel Oil Truck Unloading Equipment.
9. Oil/Water Separators.
10. Freshwater cooling towers. The cooling towers do not use chromium-based water treatment chemicals.
11. Refrigeration Units.
12. Lube Oil Vents Associated with Rotating Equipment.
13. Lube Oil Tank Vents.
14. Internal combustion engines used for transportation of passengers and freight.
15. Steam cleaning equipment.
16. Fire and safety equipment.
17. Brazing, soldering, or welding equipment.
18. Petroleum Lube Systems
19. Application of fungicide, herbicide, or pesticide
20. Non-halogenated solvent storage and cleaning operation, provided the solvents contain none of the hazardous air pollutants listed in Rule 62-210.200, F.A.C.
21. Vehicle refueling operations and associated fuel storage
22. Storage tanks less than 250 gallons

Emissions Units and/or Activities Description Continued

23. General Plant maintenance activities including, but no limited to, welding, grinding, and general vehicle repair (excluding air-conditioning systems).
24. Water and wastewater treatment equipment
25. Turbine Vapor Extractor
26. Wet surface air coolers
27. Sand Blasting and abrasive grit blasting where temporary total enclosures are used to contain particulate matter emissions.
28. Vehicular Traffic on plant roadways and grounds
29. Architectural (equipment) maintenance painting
30. One (1) 1,250 KW emergency generator diesel engine
31. One (1) 265 HP fire water pump diesel engine
32. Any emission unit or activity that would:
 - a. Not be subject to any unit-specific applicable requirement
 - b. Neither emit nor have the potential to emit:
 - (i) 500 pounds per year or more of lead and lead compounds expressed as lead
 - (ii) 1,000 pounds per year or more of any hazardous air pollutant
 - (iii) 2,500 pounds a year or more of total hazardous air pollutants
 - (iv) 5.0 tons per year or more of any regulated pollutant

Appendix U-1, List of Unregulated Emissions Units and/or Activities.

Auburndale Peaker Energy Center, LLC

DRAFT Permit No.: 1050221-009-AV

Auburndale Power Partners, L.P.

Calpine Construction Finance Company, LP

Unregulated Emissions Units and/or Activities. An emissions unit which emits no "emissions-limited pollutant" and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither 'regulated emissions units' nor 'insignificant emissions units'.

E.U.

ID No.

Brief Description of Emissions Units and/or Activity

- | | |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -003 | One or more emergency generators which are not subject to the Acid Rain Program and have total fuel consumption, in the aggregate, of 32,000 gallons per year or less of diesel fuel, 4,000 gallons per year or less of gasoline, and 4.4 million cubic feet per year or less of natural gas or propane, or an equivalent prorated amount if multiple fuels are used. Respective Permittee: Auburndale Power Partners, L.P. |
| -004 | One or more heating units and general purpose internal combustion engines which are not subject to the Acid Rain Program and have total fuel consumption, in the aggregate, of 32,000 gallons per year or less of diesel fuel, 4,000 gallons per year or less of gasoline, and 4.4 million cubic feet per year or less of natural gas or propane, or an equivalent prorated amount if multiple fuels are used. Respective Permittee: Auburndale Power Partners, L.P. |
| -005 | Surface coating operations utilizing 6.0 gallons per day or less, averaged monthly, of coatings containing greater than 5.0 percent VOCs, by volume. Respective Permittee: Auburndale Power Partners, L.P. |
| -011 | Cooling Tower Respective Permittee: Calpine Construction Finance Company, LP |

Appendix H-1, Permit History/ID Number Changes

Auburndale Peaker Energy Center, LLC
Auburndale Power Partners, L.P.
Calpine Construction Finance Company, LP

DRAFT Permit No.: 1050221-009-AV
Facility ID No.: 1050221

Permit History (for tracking purposes):

E.U.

<u>ID No.</u>	<u>Description</u>	<u>Permit No.</u>	<u>Issue Date</u>	<u>Expiration Date</u>	<u>Extended Date</u> ^{1,2}	<u>Revised Date(s)</u>
-001	Combined Cycle Combustion Turbine	AC53-208321/ PSD-FL-185 1050221-004-AC	12/14/92	10/30/95	11/1/96	6/20/94, 3/18/96, 5/22/97 2/26/02, xx/xx/xx
-002	Fuel oil storage tanks (2)					
-003	Emergency generators					
-004	Heating units and engines					
-005	Surface coating operations					
-006	Simple Cycle Combustion Turbine	1050221-004-AC		4/1/03		4/29/02
-007	Combustion Turbine	1050334-001-AC				
-008	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				
All	Title V Renewal	1050221-007-AV		12/31/07		
All	Title V Revision	1050221-009-AV		12/31/07		
All	Air Construction Permit Mod	1050221-010-AC				

ID Number Changes (for tracking purposes):

NOTE: Calpine Construction Finance Company, L.P., Osprey Energy Center (**Facility ID No.:** 1050334) will need to be merged in the future with this **Facility ID No.:** 1050221. Units 007 through 011 were incorporated from Facility ID No. 1050334 into 1050221 in permit revision 1050221-009-AV.

Notes:

1 - AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.

2 - AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.

{Rule 62-213.420(1)(b)2., F.A.C., effective 03/20/96, allows Title V Sources to operate under existing valid permits}

Table 1-1, Summary of Air Pollutant Standards and Terms

Auburndale Peaker Energy Center, LLC
Auburndale Power Partners, L.P.
Calpine Construction Finance Company, LP

FINAL Permit No.: 1050221-007-AV
Facility ID No.: 1050221

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. **Brief Description**

-001 Combined Cycle Combustion Turbine

			Allowable Emissions				Equivalent Emissions			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	Regulatory Citation	Lbs./hour	Regulatory Citation(s)	TPY	Regulatory Citation(s)	Lbs./hour	TPY
VE	Gas/Oil		<10% opacity at full load	see note #3						
			<20% opacity otherwise	see note #2						
PM10	Oil	400	0.0472 lb/mmBtu	see note #2	36.8	see note #1	7.4	see note #2		
PM10	Gas	8760	0.0134 lb/mmBtu	see note #2	10.5	see note #1	46.0	see note #2		
SO2	Oil	400	0.05 % sulfur content by weight	see note #1	70.0	see note #1	14.0	see note #2		
SO2	Gas	8760			40.0	see note #1	175.2	see note #2		
NOx	Oil	400	42 ppmvd @15% O2, 24 hour block average	see note #1	230.0	see note #2	46.0	see note #2		
NOx	Gas	8760	15 ppmvd @15% O2, 24 hour block average	see note #1	78.6	see note #2	177.0	see note #2, 4, and 5		
NOx	Gas	8760	9 ppmvd @15% O2, 12 month rolling average					see note #2, 4, and 5		
VOC	Oil	400			10.0	see note #1	2.0	see note #2		
VOC	Gas	8760			6.0	see note #1	26.3	see note #2		
CO	Oil	400	25 ppmvd	see note #2	73.0	see note #1	14.6	see note #2		
CO	Gas	8760	21 ppmvd (min. load)	see note #2	43.5	see note #1	190.5	see note #2 and 5		
CO	Gas	8760	15 ppmvd (base load)	see note #2	43.5	see note #1	190.5	see note #2 and 5		

Notes:

* The "Equivalent Emissions" listed are for informational purposes only.

#1 - from BACT Determination

#2 - from PSD-FL-185

#3 - from Rule 62-296.320(4)(b), F.A.C.

#4 - 1050221-004-AC

#5 - dual fuel total

Table 1-1, Summary of Air Pollutant Standards and Terms

Auburndale Peaker Energy Center, LLC
 Auburndale Power Partners, L.P.
 Calpine Construction Finance Company, LP

FINAL Permit No.: 1050221-007-AV
 Facility ID No.: 1050221

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. -006
 Brief Description Simple Cycle Combustion Turbine

Allowable Emissions						Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	Regulatory Citation	lbs./hour	Regulatory Citation(s)	TPY	Regulatory Citation(s)	See permit condition(s)
VE	Gas/Oil	see note A	<20% opacity	see note B					III.C.4.
PM10	Oil	400			58.5	see note D			III.C.6.
PM10	Gas	see note A			2.9	see note D			III.C.6.
SO2	Oil	400	0.05 % sulfur content by weight	see note C	74.9	see note C			III.C.7.
SO2	Gas	see note A	2 grains of sulfur per 100 dsf of gas	see note C					III.C.7.
NOx	Oil	400	42 ppmvd @15% O2, 24 hour block average	see note D			115.0	see note D and E	III.C.8.
NOx	Gas	see note A	25 ppmvd @15% O2, 24 hour block average	see note D			115.0	see note D and E	III.C.8.
VOC	Oil	400	5 ppmvd	see note C					III.C.9.
VOC	Gas	see note A	4 ppmvd	see note C					III.C.9.
CO	Gas/Oil	see note A	10 ppmvd (base load)	see note D			99.0	see note D	III.C.10.

Notes:

* The "Equivalent Emissions" listed are for informational purposes only.

A - Natural Gas limited to 2,227,400 MMBtu per consecutive 12-month period

B - from Rule 62-296.320(4)(b)1, F.A.C.

C - from Rule 62-4.070(3), F.A.C.

D - from Rule 62-212.400, F.A.C (PSD Avoidance)

E - dual fuel total

Table 1-1, Summary of Air Pollutant Standards and Terms

Auburndale Peaker Energy Center, LLC	FINAL Permit No.: 1050221-007-AV
Auburndale Power Partners, L.P.	Facility ID No.: 1050221
Calpine Construction Finance Company, LP	

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.	Brief Description
-007 and -008	Combined Cycle Combustion Turbine

Allowable Emissions							
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	Regulatory Citation(s)	lbs./hour	Regulatory Citation(s)	TPY Regulatory Citation(s)
VE	Gas		<10% opacity	See (1)			
PM/PM10	Gas	8760			24.1	See (1)	
SO2	Gas	8760	2 grains of sulfur per 100 dsf of gas	See (1)			95.4 See (1)
NOx	Gas	8760	3.5 ppmvd @ 15% O2, 24 hour block average	See (1)	27.5	See (1)	
NOx	Gas	8760	0.1 MMBtu	See (1) , (2)			
NH3	Gas	8760	9.0 ppmvd @ 15%O2	See (1)			
VOC	Gas	8760	2.3 ppmvd @ 15%O2	See (1) , (3)	5.8	See (1) , (3)	
VOC	Gas	8760	4.6 ppmvd @ 15%O2	See (1) , (4)	12.4	See (1) , (4)	
CO	Gas	8760	17 ppmvd @ 15%O2, 24hr block average	See (1)			
CO	Gas	8760	10 ppmvd @ 15%O2, 24hr block average	See (1) , (5)			
CO	Gas	8760	10 ppmvd @ 15%O2	See (1) , (6)	45.0	See (1) , (6)	

Notes:

* The "Equivalent Emissions" listed are for informational purposes only.

(1) PSD 287/1050334-002

(2) Duct Burner Limit

(3) Duct Burner Off

(4) Duct Burner On

(5) when no valid hour includes the use of duct burner firing, power augmentation or 60-70% operation

(6) at 100% output with the duct burner off and no power augmentation to be demonstrated by annual stack test using EPA Method 10 or through annual RATA testing.

Table 2-1, Summary of Compliance Requirements							
Auburndale Peaker Energy Center, LLC			DRAFT Permit No.: 1050221-009-AV				
Auburndale Power Partners, L.P.			Facility ID No.: 1050221				
Calpine Construction Finance Company, LP							
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.		Brief Description					
-001		Combined Combustion Turbine					
Pollutant Name		Compliance		Testing	Frequency	Min. Compliance	
or parameter		Fuel(s)	Method	Time	Base	Test	
				Frequency	Date *	Duration	CMS ** See permit condition(s)
VE	Gas	EPA Method 9	annual	June 4	1 hour		III.A.18., 33.
SO2	Oil	(see note 2)	upon receipt of each oil shipment				III.A.22., 23.
SO2	Gas	(see note 3)	bi-mionthly				III.A.22., 23.
NOx	Gas	EPA Method 20	permit renewal (5 year)	June 4	3 hour	Yes	III.A.22., 33.
VOC	Gas	EPA Method 25A	permit renewal (5 year)	June 4	3 hour		III.A.25., 33.
CO	Gas	EPA Method 10	permit renewal (5 year)	June 4	3 hour		III.A.26., 33.
O2	Oil/Gas	EPA Method 3A	permit renewal (5 year)	June 4	3 hour	Yes	III.A.22., 33.
Notes:							
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.							
**CMS [=] continuous monitoring system							
(2) Sulfur dioxide is indirectly determined by fuel sulfur analysis by ASTM D129-91; D1552-90; D2280-71; D2880-96; D2622-92; D4292; D4294-90; or the latest edition(s) methods specified or any other method approved in writing by the Department pursuant to Rule 62-297.620, F.A.C. or 40 CFR 75, Appendix D.							
(3) Sulfur dioxide is indirectly determined by fuel sulfur analysis by ASTM methods ASTM D1072-80, 90, 94; D3031-81, 86; D3246-81, 92; D4084-82, 94; D4468-85; D5504-94, or any other method approved in writing by the Department pursuant to Rule 62-297.620, F.A.C. or 40 CFR 75, Appendix D.							

Table 2-1, Summary of Compliance Requirements							
Auburndale Peaker Energy Center, LLC			DRAFT Permit No.: 1050221-009-AV				
Auburndale Power Partners, L.P.			Facility ID No.: 1050221				
Calpine Construction Finance Company, LP							
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.		Brief Description					
-006		Simple Cycle Combustion Turbine					
		Testing		Frequency	Min. Compliance		
Pollutant Name		Compliance	Time	Base	Test		
or parameter	Fuel(s)	Method	Frequency	Date *	Duration	CMS **	See permit condition(s)
VE	Gas/Oil	EPA Method 9	annual	June 4	1 hour		III.A.18., 33.
SO2	Oil	see note (2)	upon receipt of each oil shipment				III.A.22., 23.
SO2	Gas	see note (3)	bi-monthly				
NOx	Gas/Oil	EPA Method 20 or Annual RATA at 100% output	annual	June 4	3 hour	Yes	III.A.22., 33.
VOC	Gas/Oil	EPA Method 25A	permit renewal (5 year)	June 4	3 hour		III.A.25., 33.
CO	Gas/Oil	EPA Method 20 or Annual RATA at 100% output	annual	June 4	3 hour		III.A.26., 33.
Notes:							
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.							
**CMS [=] continuous monitoring system							
(2) Sulfur dioxide is indirectly determined by fuel sulfur analysis by ASTM D129-91; D1552-90; D2280-71; D2880-96; D2622-92; D4292; D4294-90; or the latest edition(s) methods specified or any other method approved in writing by the Department pursuant to Rule 62-297.620, F.A.C. or 40 CFR 75, Appendix D.							
(3) Sulfur dioxide is indirectly determined by fuel sulfur analysis by ASTM methods D4084-82, D3246-81, or any other method approved in writing by the Department pursuant to Rule 62-297.620, F.A.C. or 40 CFR 75, Appendix D.							

Table 2-1, Summary of Compliance Requirements							
Auburndale Peaker Energy Center, LLC			DRAFT Permit No.: 1050221-009-AV				
Auburndale Power Partners, L.P.			Facility ID No.: 1050221				
Calpine Construction Finance Company, LP							
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.		Brief Description					
-007 & -008		Combined Combustion Turbine and Duct Burners					
		Testing		Frequency	Min. Compliance		
Pollutant Name		Compliance	Time	Base	Test		
or parameter	Fuel(s)	Method	Frequency	Date *	Duration	CMS **	See permit condition(s)
VE	Gas	EPA Method 9	annual		1 hour		III.D
SO2	Gas	(see note 1)	bi-monthly				III.D
NOx	Gas	EPA Method 20	annual		1 hour	Yes	III.D
CO	Gas	EPA Method 10	annual		1 hour	Yes	III.D
PM		EPA Method 5	annual		1 hour		III.D
VOC	Gas/Oil	EPA Method 18, 25 or 25A	permit renewal (5 year)				III.A.25., 33.
Notes:							
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.							
**CMS [=] continuous monitoring system							
(1) ASTM methods D4084-82 or D3246-81 (or equivalent) for sulfur content of gaseous fuel shall be utilized in accordance with the EPA-approved custom fuel monitoring schedule or natural gas supplier data may be submitted or the natural gas sulfur content referenced in 40 CFR 75 Appendix D may be utilized.							