



Florida Department of Environmental Protection

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

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

PERMITTEE

Calpine Corporation Auburndale Energy Complex
717 Texas Avenue, Suite 1000
Houston, TX 77002

Responsible Official:

Mr. Jason M. Goodwin
Director of Environmental Health & Safety

Permit No. 1050221-012-AC
PSD-FL-185A and PSD-FL-287A
Auburndale Energy Complex
Facility ID No. 1050221
Combustion Turbines
Revised Capacities

FACILITY AND LOCATION

This permit revises the original air construction permits (Permit Nos. 1050221-003-AC, 1050221-004-AC (PSD-FL-185) and 1050234-001-AC (PSD-FL-287)) to allow nominal increases to the heat input rates for the four existing combustion turbines. The turbines are installed at the existing Auburndale Energy Complex, which is located at 1501 Derby Avenue (Auburndale Power Plant and Auburndale Peak Energy Center) and 1651 Derby Avenue (Osprey Energy Center) in Auburndale, Florida

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.) and Title 40, Parts 60 and 63 of the Code of Federal Regulations (CFR).

Joseph Kahn, Director
Division of Air Resource Management

2/6/08

Effective Date

NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit by:

Calpine Corporation
717 Texas Avenue
Suite 1000
Houston, Texas 77002

Authorized Representative:

Mr. Jason Goodwin, Director, Environmental Health and Safety

Permit No. 1050221-012-AC
Auburndale Energy Complex
Combustion Turbines
Revised Capacities
Hardee County, Florida

Enclosed is final air Permit No. 1050221-012-AC (PSD-FL-185A and PSD-FL-287A), which authorizes nominal increases in the heat input rates for the four existing combustion turbines to recognize the actual installed capacities. The combustion turbines are installed at the existing Auburndale Energy Complex, which is located in Polk County at 1501 Derby Avenue (Auburndale Power Plant and Auburndale Peak Energy Center) and 1651 Derby Avenue (Osprey Energy Center) in Auburndale, Florida. This permit is issued pursuant to Chapter 403, Florida Statutes (F.S.).

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S. by filing a Notice of Appeal pursuant to 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 of Appeal must be filed within 30 days from the date this order is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.



Trina Vielhauer, Chief
Bureau of Air Regulation

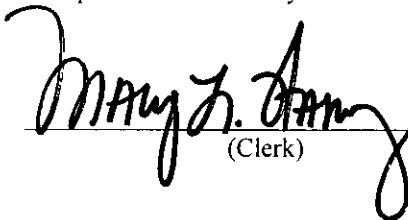
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final Permit) was sent by electronic mail with received receipt requested before the close of business on 2/7/08 to the persons listed:

Mr. Jason Goodwin, Calpine Corporation (jgoodwin@calpine.com)
Ms. Heidi Whidden, Calpine Corporation (hwhidden@calpine.com)
Mr. Thomas Davis, ECT (tdavis@ectinc.com)
Ms. Cindy Zhang-Torres, Southwest District Office (Cindy.Zhang-Torres@dep.state.fl.us)
Ms. Kathleen Forney, EPA Region 4 (forney.kathleen@epa.gov)

Clerk Stamp

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


(Clerk)

2/7/08
(Date)

FINAL DETERMINATION

PERMITTEE

Calpine Corporation
717 Texas Avenue
Suite 1000
Houston, Texas 77002

PERMITTING AUTHORITY

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

PROJECT

Project No. 1050221-012-AC (PSD-FL-185A and PSD-FL-287A)
Auburndale Energy Complex

The project recognizes the actual installed capacities (maximum heat input rates) for the four existing combustion turbines. The turbines are installed at the existing Auburndale Energy Complex, which is located at 1501 Derby Avenue (Auburndale Power Plant and Auburndale Peak Energy Center) and 1651 Derby Avenue (Osprey Energy Center) in Auburndale, Florida.

NOTICE AND PUBLICATION

The Department distributed the Intent to Issue permit package on December 21, 2007. The applicant published the Public Notice of Intent to Issue in The Ledger on January 5, 2008. The Department received the proof of publication on January 7, 2008.

COMMENTS

No comments on the Draft Permit were received from the public, the Department's Southwest District Office, the EPA Region 4 Office or the applicant.

CONCLUSION

The final action of the Department is to issue the permit as drafted.

AIR CONSTRUCTION PERMIT REVISIONS

REVISION OF PERMIT NO. 1050221-003-AC (PSD-FL-185)

This permitting action revises the following specific condition for the 156 MW combined cycle combustion turbine (EU-001):

Specific Conditions

Operating Rates

For Condition 5, add the following requirement.

f. Based on the lower heating value (LHV) and International Standards Organization (ISO) conditions, the maximum heat input rate to the combustion turbine is 1,364 MMBtu/hr while firing natural gas with the wet compression system in operation.

REVISION TO PERMIT NO. 1050221-004-AC (PSD-FL-185)

This permitting action revises the following specific condition for the 120 MW simple cycle combustion turbine (EU-006):

Section 3. Emissions Units Specific Conditions

3. Permitted Capacity. The maximum heat input to the combustion turbine from firing natural gas shall not exceed ~~1,591~~ 1,776 MMBtu/hour 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 distillate oil shall not exceed ~~1,546~~ 1,726 MMBtu/hour 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(PTE), F.A.C. and 1050221-004-AC]

REVISION TO PERMIT NO. 1050234-001-AC (PSD-FL-287)


This permitting action revises the following specific condition for the two 170 MW combined cycle combustion turbines (EU-007 and EU-008):

Section 3. Emissions Units Specific Conditions

9. Combustion Turbines Capacity: Based on the lower heating value (LHV) of the fuel at ISO conditions, the maximum heat input rate shall not exceed ~~1,669~~ 1,875 MMBtu/hour when firing natural gas without power augmentation. The maximum heat input rate will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions shall be maintained by the plant.

Memorandum

Florida Department of Environmental Protection

TO: Joseph Kahn, Director, DARM
THROUGH: Trina L. Vielhauer, Chief, BAR
FROM: Jeff Koerner, Bureau of Air Regulation 
Bruce Thomas, Bureau of Air Regulation
DATE: February 6, 2008
SUBJECT: Final Permit No. 1050221-012-AC (PSD-FL-185A and PSD-FL-287A)
Auburndale Energy Complex
Combustion Turbines, Revised Capacities

Attached is the final air construction permit modification for the Auburndale Energy Complex. The project recognizes the actual installed capacity (maximum heat input rates) for four existing combustion turbines. No comments were received from EPA Region 4, the Department's Southwest District Office, the applicant or the public. We recommend your approval of the attached final permit.

Attachments

JK/tv/jfk/bxt

Harvey, Mary

From: Harvey, Mary
Sent: Thursday, February 07, 2008 3:08 PM
To: 'Mr. Jason Goodwin, Calpine Corporation'; 'Ms. Heidi Whidden, Calpine Corporation'; 'Mr. Thomas Davis, ECT'; Zhang-Torres; 'Ms. Kathleen Forney, EPA Region 4'
Cc: Thomas, Bruce X.; Walker, Elizabeth (AIR); Gibson, Victoria
Subject: Final Permit No. 1050221-012-AC (PSD-FL-185A and PSD-FL-287A)
Attachments: 1050221.012.AC.F.pdf.zip

Tracking:	Recipient	Delivery	Read
	'Mr. Jason Goodwin, Calpine Corporation'		
	'Ms. Heidi Whidden, Calpine Corporation'		
	'Mr. Thomas Davis, ECT'		
	Zhang-Torres		Read: 2/7/2008 3:20 PM
	'Ms. Kathleen Forney, EPA Region 4'		
	Thomas, Bruce X.		Read: 2/7/2008 3:08 PM
	Walker, Elizabeth (AIR)	Delivered: 2/7/2008 3:08 PM	
	Gibson, Victoria		

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site:
<http://www.adobe.com/products/acrobat/readstep.html>.

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

DEP, Bureau of Air Regulation

2/11/2008

Harvey, Mary

From: Zhang-Torres
To: Harvey, Mary
Sent: Thursday, February 07, 2008 3:21 PM
Subject: Read: Final Permit No. 1050221-012-AC (PSD-FL-185A and PSD-FL-287A)

Your message

To: 'Mr. Jason Goodwin, Calpine Corporation'; 'Ms. Heidi Whidden, Calpine Corporation'; 'Mr. Thomas Davis, ECT'; Zhang-Torres; 'Ms. Kathleen Forney, EPA Region 4'
Cc: Thomas, Bruce X.; Walker, Elizabeth (AIR); Gibson, Victoria
Subject: Final Permit No. 1050221-012-AC (PSD-FL-185A and PSD-FL-287A)
Sent: 2/7/2008 3:08 PM

was read on 2/7/2008 3:20 PM.

Harvey, Mary

From: Thomas, Bruce X.
To: Harvey, Mary
Sent: Thursday, February 07, 2008 3:08 PM
Subject: Read: Final Permit No. 1050221-012-AC (PSD-FL-185A and PSD-FL-287A)

Your message

To: 'Mr. Jason Goodwin, Calpine Corporation'; 'Ms. Heidi Whidden, Calpine Corporation'; 'Mr. Thomas Davis, ECT'; Zhang-Torres; 'Ms. Kathleen Forney, EPA Region 4'
Cc: Thomas, Bruce X.; Walker, Elizabeth (AIR); Gibson, Victoria
Subject: Final Permit No. 1050221-012-AC (PSD-FL-185A and PSD-FL-287A)
Sent: 2/7/2008 3:08 PM

was read on 2/7/2008 3:08 PM.

Harvey, Mary

From: Forney.Kathleen@epamail.epa.gov
Sent: Friday, February 08, 2008 12:59 PM
To: Harvey, Mary
Subject: Re: FW: Final Permit No. 1050221-012-AC (PSD-FL-185A and PSD-FL-287A)

thanks

Katy R. Forney
Air Permits Section
EPA - Region 4
61 Forsyth St., SW
Atlanta, GA 30303

Phone: 404-562-9130
Fax: 404-562-9019

"Harvey, Mary"
<Mary.Harvey@dep
.state.fl.us>

02/07/2008 03:08
PM

To
Kathleen Forney/R4/USEPA/US@EPA
cc
Subject
FW: Final Permit No.
1050221-012-AC (PSD-FL-185A and
PSD-FL-287A)

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on this link to the DEP Customer Survey. Thank you in advance for completing the survey.

From: Harvey, Mary
Sent: Thursday, February 07, 2008 3:08 PM
To: 'Mr. Jason Goodwin, Calpine Corporation'; 'Ms. Heidi Whidden, Calpine Corporation'; 'Mr. Thomas Davis, ECT'; Zhang-Torres; 'Ms. Kathleen Forney, EPA Region 4'
Cc: Thomas, Bruce X.; Walker, Elizabeth (AIR); Gibson, Victoria
Subject: Final Permit No. 1050221-012-AC (PSD-FL-185A and PSD-FL-287A)

Dear Sir/Madam:

Harvey, Mary

From: Tom Davis [tdavis@ectinc.com]
Sent: Wednesday, February 20, 2008 4:24 PM
To: Harvey, Mary
Subject: RE: Final Permit No. 1050221-012-AC (PSD-FL-185A and PSD-FL-287A)

Mary,

Received your email. Thanks.

From: Harvey, Mary [mailto:Mary.Harvey@dep.state.fl.us]
Sent: Wednesday, February 20, 2008 4:17 PM
To: Mr. Jason Goodwin, Calpine Corporation; Mr. Thomas Davis, ECT
Cc: Ms. Heidi Whidden, Calpine Corporation
Subject: FW: Final Permit No. 1050221-012-AC (PSD-FL-185A and PSD-FL-287A)

Please email me on the following permit. I need the read receipt to complete file.

Thanks,
Mary

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From: Harvey, Mary
Sent: Wednesday, February 13, 2008 10:35 AM
To: 'Mr. Jason Goodwin, Calpine Corporation'; 'Ms. Heidi Whidden, Calpine Corporation'
Subject: FW: Final Permit No. 1050221-012-AC (PSD-FL-185A and PSD-FL-287A)

Good Morning!!

I have not received your read receipt for the above permit number. Please email if you have received this file. I need the read receipt to complete the file.

Thanks,
Mary

From: Harvey, Mary
Sent: Thursday, February 07, 2008 3:08 PM
To: 'Mr. Jason Goodwin, Calpine Corporation'; 'Ms. Heidi Whidden, Calpine Corporation'; 'Mr. Thomas Davis, ECT'; Zhang-Torres; 'Ms. Kathleen Forney, EPA Region 4'
Cc: Thomas, Bruce X.; Walker, Elizabeth (AIR); Gibson, Victoria
Subject: Final Permit No. 1050221-012-AC (PSD-FL-185A and PSD-FL-287A)

Dear Sir/Madam:

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The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

2/20/2008