



# 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

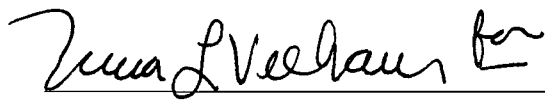
Permit No. 1050221-012-AC  
PSD-FL-185A and PSD-FL-287A  
Auburndale Energy Complex  
Facility ID No. 1050221  
Combustion Turbines  
Revised Capacities

## 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

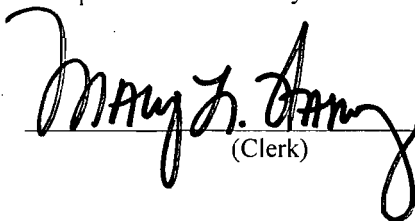
### CERTIFICATE OF SERVICE

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

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### 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.

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## AIR CONSTRUCTION PERMIT REVISIONS

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### 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 ~~1,594~~ 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

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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).

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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

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**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

*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:** 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:

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.

2/20/2008

KOFAX  
SEPARATOR  
PSD



# 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

August 9, 2007

## *ELECTRONIC MAIL - RECEIVED RECEIPT REQUESTED*

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

**Re: Request for Additional Information**  
Auburndale Energy Complex  
Project No. 1050221-012-AC (PSD-FL-185)  
Combined Cycle Gas Turbine (EU-001) Heat Input Increase

Dear Mr. Goodwin:

On July 5, 2007, the Department received your application for an air construction permit to increase the maximum heat input to combined cycle gas turbine (EU-001) by approximately 11 percent when firing natural gas in the wet compression mode at the Auburndale Energy Complex. The application is incomplete. In order to continue processing your application, the Department will need the additional information requested below. Should your response to any of the items below require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

1. Please provide actual capacity information for the combined cycle gas turbine to support your request for an increase in the permitted heat input rate. Provide actual short-term heat input rates that validate the curve in Figure 1.
2. Provide the actual annual fuel firing rates and heat input rates for the combined cycle gas turbine for the last 5 years of operation.
3. Summarize the actual NO<sub>x</sub> emissions based on CEMS data and CO emissions based on test data from the combined cycle gas turbine for the last 5 years.
4. Provide actual NO<sub>x</sub> data supporting operation at the increased heat input rate.
5. Please estimate the emissions increases expected from the increase in heat input. Compare the projected actual emissions to baseline emissions as defined in 62-210.200, 62-210.370, and 62-212.300, F.A.C. Will the predicted increases exceed the PSD significant emissions rates?

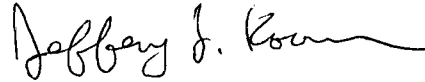
The Department will resume processing your application after receipt of the requested information. Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. For any material changes to the application, please include a new certification statement by the authorized representative or responsible official. You are reminded that Rule 62-4.055(1), F.A.C. requires applicants to respond to requests for information within 90 days or to provide a written request for an additional period of time to submit the information.

## REQUEST FOR ADDITIONAL INFORMATION

---

If you have any questions regarding this matter, please contact the project engineer, Bruce Thomas, at 850/488-0114.

Sincerely,



Jeffery F. Koerner, Administrator  
Air Permitting North Section

This letter was sent by electronic mail with received receipt requested to the following people:

Mr. Jason Goodwin, Calpine Corporation ([jgoodwin@calpine.com](mailto:jgoodwin@calpine.com))  
Ms. Heidi Whidden, Calpine Corporation ([hwhidden@calpine.com](mailto:hwhidden@calpine.com))  
Mr. Tomas Davis, ECT ([tdavis@ectinc.com](mailto:tdavis@ectinc.com))  
Mr. Mike Halpine, ([mike.halpine@dep.state.fl.us](mailto:mike.halpine@dep.state.fl.us))  
Ms. Cindy Zhang-Torres, SWD ([Cindy.Zhang-Torres@dep.state.fl.us](mailto:Cindy.Zhang-Torres@dep.state.fl.us))  
Ms. Kathleen Forney ([forney.kathleen@epa.gov](mailto:forney.kathleen@epa.gov))  
Mr. Jim Little, EPA Region 4 ([little.james@epa.gov](mailto:little.james@epa.gov))  
Mr. Dee Morse, National Park Service ([Dee\\_Morse@nps.gov](mailto:Dee_Morse@nps.gov))

JFK/bt

**Harvey, Mary**

**From:** Harvey, Mary  
**Sent:** Thursday, August 09, 2007 3:25 PM  
**To:** 'Mr. Jason Goodwin, Calpine Corporation'; 'Ms. Heidi Whidden, Calpine Corporation'; 'Mr. Tomas Davis, ECT'; 'Mr. Mike Halpine,; Zhang-Torres; 'Ms. Kathleen Forney'; 'Mr. Jim Little, EPA Region 4'; 'Mr. Dee Morse, National Park Service'  
**Cc:** Thomas, Bruce X.; Adams, Patty; Gibson, Victoria  
**Subject:** Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)  
**Attachments:** Letter - Calpine Corporation - Project #1050221-012-AC.pdf

Tracking:	Recipient	Delivery	Read
	'Mr. Jason Goodwin, Calpine Corporation'		
	'Ms. Heidi Whidden, Calpine Corporation'		
	'Mr. Tomas Davis, ECT'		
	'Mr. Mike Halpine,'	Failed: 8/9/2007 3:25 PM	
	Zhang-Torres		Read: 8/9/2007 3:39 PM
	'Ms. Kathleen Forney'		
	'Mr. Jim Little, EPA Region 4'		
	'Mr. Dee Morse, National Park Service'		
	Thomas, Bruce X.		
	Adams, Patty		Read: 8/14/2007 9:52 AM
	Gibson, Victoria		Read: 8/9/2007 3:30 PM

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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).

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<http://www.adobe.com/products/acrobat/readstep.html>.

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Thank you,

8/14/2007

## Harvey, Mary

---

**From:** Forney.Kathleen@epamail.epa.gov  
**Sent:** Tuesday, August 14, 2007 5:49 PM  
**To:** Harvey, Mary  
**Cc:** Little.James@epamail.epa.gov  
**Subject:** Re: Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)

**Attachments:** Letter - Calpine Corporation - Project #1050221-012-AC.pdf



Letter - Calpine  
Corporation -...

Thanks we got this letter

Katy

-----  
Katy R. Forney  
Air Permits Section  
EPA - Region 4  
61 Forsyth St., SW  
Atlanta, GA 30024

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

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

08/09/2007 03:25  
PM

To  
"Mr. Jason Goodwin, Calpine  
Corporation"  
<jgoodwin@calpine.com>, "Ms.  
Heidi Whidden, Calpine  
Corporation"  
<hwhidden@calpine.com>, "Mr.  
Tomas Davis, ECT"  
<tdavis@ectinc.com>, "Mr. Mike  
Halpine,"  
<mike.halpine@dep.state.fl.us>,  
"Zhang-Torres"  
<Cindy.Zhang-Torres@dep.state.fl.  
us>, Kathleen  
Forney/R4/USEPA/US@EPA, James  
Little/R4/USEPA/US@EPA, "Mr. Dee  
Morse, National Park Service"  
<Dee\_Morse@nps.gov>

cc

"Thomas, Bruce X."  
<Bruce.X.Thomas@dep.state.fl.us>,  
"Adams, Patty"  
<Patty.Adams@dep.state.fl.us>,  
"Gibson, Victoria"  
<Victoria.Gibson@dep.state.fl.us>

Subject

Letter - Calpine Corporation -  
Jason Goodwin - Project  
#1050221-012-AC (PSD-FL-185)

**Harvey, Mary**

**From:** Harvey, Mary  
**Sent:** Thursday, August 09, 2007 3:28 PM  
**To:** Halpin, Mike  
**Cc:** Thomas, Bruce X.  
**Subject:** FW: Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)  
**Attachments:** Letter - Calpine Corporation - Project #1050221-012-AC.pdf

Tracking:	Recipient	Delivery	Read
	Halpin, Mike	Delivered: 8/9/2007 3:28 PM	Read: 8/9/2007 3:38 PM
	Thomas, Bruce X.	Delivered: 8/9/2007 3:28 PM	Read: 8/9/2007 3:29 PM

**From:** Harvey, Mary  
**Sent:** Thursday, August 09, 2007 3:25 PM  
**To:** 'Mr. Jason Goodwin, Calpine Corporation'; 'Ms. Heidi Whidden, Calpine Corporation'; 'Mr. Tomas Davis, ECT'; 'Mr. Mike Halpine,; Zhang-Torres; 'Ms. Kathleen Forney'; 'Mr. Jim Little, EPA Region 4'; 'Mr. Dee Morse, National Park Service'  
**Cc:** Thomas, Bruce X.; Adams, Patty; Gibson, Victoria  
**Subject:** Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)

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<http://www.adobe.com/products/acrobat/readstep.html>.

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Thank you,

8/14/2007



## Harvey, Mary

---

**From:** Adams, Patty  
**To:** Harvey, Mary  
**Sent:** Tuesday, August 14, 2007 9:52 AM  
**Subject:** Read: Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)

Your message

**To:** 'Mr. Jason Goodwin, Calpine Corporation'; 'Ms. Heidi Whidden, Calpine Corporation'; 'Mr. Tomas Davis, ECT'; 'Mr. Mike Halpine,; Zhang-Torres; 'Ms. Kathleen Forney'; 'Mr. Jim Little, EPA Region 4'; 'Mr. Dee Morse, National Park Service'  
**Cc:** Thomas, Bruce X.; Adams, Patty; Gibson, Victoria  
**Subject:** Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)  
**Sent:** 8/9/2007 3:25 PM

was read on 8/14/2007 9:52 AM.

## Harvey, Mary

---

**From:** Dee\_Morse@nps.gov  
**Sent:** Thursday, August 09, 2007 6:19 PM  
**To:** Harvey, Mary  
**Subject:** Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)

### Return Receipt

Your Letter - Calpine Corporation - Jason Goodwin - Project  
document: #1050221-012-AC (PSD-FL-185)

was Dee Morse/DENVER/NPS  
received  
by:

at: 08/09/2007 04:18:35 PM

## Harvey, Mary

---

**From:** Zhang-Torres  
**To:** Harvey, Mary  
**Sent:** Thursday, August 09, 2007 3:40 PM  
**Subject:** Read: Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)

Your message

**To:** 'Mr. Jason Goodwin, Calpine Corporation'; 'Ms. Heidi Whidden, Calpine Corporation'; 'Mr. Tomas Davis, ECT'; 'Mr. Mike Halpine,; Zhang-Torres; 'Ms. Kathleen Forney'; 'Mr. Jim Little, EPA Region 4'; 'Mr. Dee Morse, National Park Service'  
**Cc:** Thomas, Bruce X.; Adams, Patty; Gibson, Victoria  
**Subject:** Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)  
**Sent:** 8/9/2007 3:25 PM

was read on 8/9/2007 3:39 PM.

## Harvey, Mary

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**From:** Tom Davis [tdavis@ectinc.com]  
**Sent:** Thursday, August 09, 2007 3:27 PM  
**To:** Harvey, Mary  
**Subject:** RE: Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)

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**From:** Harvey, Mary [mailto:Mary.Harvey@dep.state.fl.us]  
**Sent:** Thursday, August 09, 2007 3:25 PM  
**To:** Mr. Jason Goodwin, Calpine Corporation; Ms. Heidi Whidden, Calpine Corporation; Mr. Tomas Davis, ECT; Mr. Mike Halpine,; Zhang-Torres; Ms. Kathleen Forney; Mr. Jim Little, EPA Region 4; Mr. Dee Morse, National Park Service  
**Cc:** Thomas, Bruce X.; Adams, Patty; Gibson, Victoria  
**Subject:** Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)

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,

8/14/2007

## Harvey, Mary

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**From:** Heidi Whidden [HWhidden@calpine.com]  
**Sent:** Thursday, August 09, 2007 3:36 PM  
**To:** Harvey, Mary  
**Cc:** Heidi Whidden  
**Subject:** RE: Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)

Received. Thank you!

---

**From:** Harvey, Mary [mailto:Mary.Harvey@dep.state.fl.us]  
**Sent:** Thursday, August 09, 2007 3:25 PM  
**To:** Jason Goodwin; Heidi Whidden; Mr. Tomas Davis, ECT; Mr. Mike Halpine,; Zhang-Torres; Ms. Kathleen Forney; Mr. Jim Little, EPA Region 4; Mr. Dee Morse, National Park Service  
**Cc:** Thomas, Bruce X.; Adams, Patty; Gibson, Victoria  
**Subject:** Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)

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Thank you,

8/14/2007

## Harvey, Mary

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**From:** Gibson, Victoria  
**To:** Harvey, Mary  
**Sent:** Thursday, August 09, 2007 3:30 PM  
**Subject:** Read: Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)

Your message

**To:** 'Mr. Jason Goodwin, Calpine Corporation'; 'Ms. Heidi Whidden, Calpine Corporation'; 'Mr. Tomas Davis, ECT'; 'Mr. Mike Halpine,';  
Zhang-Torres; 'Ms. Kathleen Forney'; 'Mr. Jim Little, EPA Region 4'; 'Mr. Dee Morse, National Park Service'  
**Cc:** Thomas, Bruce X.; Adams, Patty; Gibson, Victoria  
**Subject:** Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)  
**Sent:** 8/9/2007 3:25 PM

was read on 8/9/2007 3:30 PM.

## Harvey, Mary

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**From:** Halpin, Mike  
**To:** Harvey, Mary  
**Sent:** Thursday, August 09, 2007 3:39 PM  
**Subject:** Read: Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)

Your message

**To:** Halpin, Mike  
**Cc:** Thomas, Bruce X.  
**Subject:** FW: Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)  
**Sent:** 8/9/2007 3:28 PM

was read on 8/9/2007 3:38 PM.

## Harvey, Mary

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**From:** Thomas, Bruce X.  
**To:** Harvey, Mary  
**Sent:** Thursday, August 09, 2007 3:29 PM  
**Subject:** Read: FW: Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)

Your message

**To:** Halpin, Mike  
**Cc:** Thomas, Bruce X.  
**Subject:** FW: Letter - Calpine Corporation - Jason Goodwin - Project #1050221-012-AC (PSD-FL-185)  
**Sent:** 8/9/2007 3:28 PM

was read on 8/9/2007 3:29 PM.





Smurfit-Stone  
Container Corporation  
Panama City Mill  
1 Everitt Ave.  
Panama City, FL 32401  
850-785-4311  
850-763-8530 fax

RECEIVED

FEB 29 2008

BUREAU OF AIR REGULATION

February 27, 2008

Florida Dept. of Environmental Protection  
Bureau of Air Regulation  
2600 Blair Stone Rd, MS #5505  
Tallahassee, FL, 32399-2400

Re: Kiln Scrubber pH Testing Protocol  
Permit No. PSD-FL-388  
Project No. 0050009-028-AC

Dear Sir or Madam

This "Kiln Scrubber pH Testing Protocol" is submitted in accordance with paragraph A.15 of the above permit, which requires the following:

1. SO2 Stack Testing Methods:

We propose to use the following EPA methods

SO2: EPA method 6 or 6C

Traverse points, velocity, flow rate, gas analysis & moisture content: EPA methods 1-4

2. Baseline Conditions

The kiln will be at full production, burning the maximum attainable petcoke heat input.

3. pH monitoring methods and frequency

We will use a standard in line pH probe. The output will be sampled continuously (a minimum of once every 15 minutes), and recorded in the "process interface" system.

4. pH adjustment

We will start the test by dumping the scrubber and refilling it with water. This will represent the lowest pH that we will be able to attain during normal operation. We will then immediately commence a SO2 stack test. If the test indicates compliance, the average pH recorded during the three hour test will become our minimum three hour average value. If the results are higher than the allowable, we will retest at a higher pH. This higher pH will depend on how close to passing the first test was. If the first test was close, within 2 lbs/hr of the limit, we will raise the pH by a half standard pH unit and retest. Otherwise we will raise it a full pH unit. The pH in the kiln scrubber will tend to climb as caustic material is recovered from the gas stream. We will control this by using fresh water makeup.

We will continue the above process until compliance is achieved.



5. Schedule

These tests will be conducted within 60 days of attaining maximum petcoke heat input.

Please contact me at (850) 785-4311 x470 if you have additional questions.

Sincerely

A handwritten signature in black ink, appearing to read "Tom Clements".

Tom Clements  
Environmental Mgr.

Shared/envdata/petcoke/FDEP scrubber pH plan



Smurfit-Stone  
Container Corporation  
Panama City Mill  
1 Everitt Ave.  
Panama City, FL 32401  
850-785-4311  
850-763-8530 fax

February 20, 2008

Ms. Trina Vielhauer  
Chief, Bureau of Air Regulations  
Florida Dept. of Environmental Protection  
2600 Blair Stone Rd, MS #5505  
Tallahassee, FL, 32399-2400

RECEIVED

FEB 21 2008

BUREAU OF AIR REGULATION

Re: Smurfit-Stone Panama City Mill  
Permit To Burn Pet Coke To Displace Fuel Oil  
Permit No.: PSD-FL-388

Dear Ms. Vielhauer

We appreciate the time that you made available to us for our conference call of February 15, 2008. The purpose of this letter is to describe our plans forward on the above issue and to give the Department an opportunity to comment on and concur with those plans. As discussed during the call, the Department has issued an air construction permit allowing the mill to burn pet coke in an existing lime kiln, thereby significantly reducing the use of fuel oil. The FDEP issued permit for this project requires that the mill install NOx and stack gas flow monitors on the kiln. We have a serious concern about, and have not seen evidence to support, the Department's view (which is based on use of such monitors in the cement industry) that the stack gas flow monitor the Department is requiring is a proven technology for pulp and paper industry lime kiln stacks equipped with scrubbers. We have previously explained the conditions in our kiln that may make operation of a stack gas flow monitor inaccurate and unreliable, and these are not restated here.

As a matter of corporate policy, we cannot risk installing a system that will not guarantee full compliance with our Title V permit. It is possible that after a period of alteration, adjustment, and tuning the stack gas flow monitor "may" meet the RATA criteria and may be able to operate reliably with sufficient uptime to satisfy the Department; however, this has not been demonstrated. Given the significant uncertainty about the monitor's operation, unless the permit is revised or we can agree on another approach to allow for the possibility that the monitor will not operate as needed, we would be exposed to a significant period of non-compliance if we begin to burn pet coke and then determine that the flow monitor cannot operate reliably. To resolve this uncertainty, we are asking the Department to consider two options as described below:

### **Option 1**

Obtain agreement with the Department, either by letter or permit modification, that if, after we start burning pet coke, the stack gas flow meter does not repeatedly pass RATA testing or otherwise fails to operate reliably despite our good faith efforts over a predetermined period of time, e.g. 6 months (which would of course include installation, operation and maintenance of the flow gas monitor to manufacturer's recommendations), the mill would stop burning pet coke and the Department would not take any enforcement action associated with the failure of the monitor.

### **Option 2**

Install and begin operating a NOx CEMS with a stack gas flow monitor before burning pet coke. If the flow monitor cannot repeatedly pass RATA testing within a predetermined period of time, e.g. 6 months, or otherwise cannot operate reliably prior to burning pet coke, we would not burn pet coke under the current permit and would remove the NOx CEMS in its entirety. This should not be a permit issue since the NOx CEMS requirement is contingent upon burning pet coke per Condition 2 of Appendix F: *"Timelines: The owner or operator shall install each CEMS required by this permit and conduct the appropriate performance specifications for each CEMS no later than 180 calendar days after initial startup on petcoke."* If pet coke is never burned, this monitoring requirement would never become effective. We anticipate that if the monitor functions acceptably before burning pet coke, this will continue to be the case afterward. However, since there is no operating experience in our industry for this application, we would again wish to reach an understanding with the Department about how to address problems with the accuracy or reliability of the monitor that become known after we begin burning pet coke.

Since this would be the first installation of its kind, we would appreciate the opportunity to work closely with the Department and give the monitor every opportunity to succeed. We believe that the two options outlined above are reasonable and fully consistent with the Department's stated goal of "pushing technology forward." Either would allow us to work with the Department to determine if an unproven technology will work while avoiding an unintended and unavoidable violation of the construction permit. We are fully willing to consider any other options to resolve this that the Department may suggest.

We also request that the Department approve the use of Methods 2G and 2H in determining the relative accuracy of the stack flow monitor as required by the vendor as a condition of their limited guarantee. If the monitor fails to work adequately, Teledyne-Monitor Labs will guarantee the cost of the Teledyne UF150 instrument itself, but not the cost of the installation or testing. Teledyne has conditioned its guarantee on the use of Method 2G and Method 2H. Method 2G uses a "Null Method" to determine off-axis flow and is reportedly superior to Method 2. Method 2H is a methodology which determines the flow conditions within the boundary layer of the stack. Since we are required to give notice of the testing and submit an



extensive CEMS Operation Plan for approval, we believe there are adequate safeguards if we use the alternative methods.

Since this will be an effort to demonstrate that the flow monitor can be used for this application, we also invite the Department to participate in testing the CEMS, either using its own team or jointly observing the tests.

Given our company's investment to enable the kiln to burn pet coke, we have a great incentive to make the CEMS work. However, our company is committed to ensuring complete compliance and wants to coordinate and work with the Department so there will be no noncompliance issues or questions regarding our installation, operation, or testing of the CEMS.

Because of the importance this matter is to our company, we would like to request a meeting with yourself and Mr. Kahn as soon as possible to discuss this matter further and reach an agreement on how to proceed to ensure that we remain in full compliance while the CEMS is installed, operated, calibrated, and tested to the satisfaction of all.

If you have any questions or concerns, please contact Tom Clements at (850) 785-4311 x470 or [tlclements@smurfit.com](mailto:tlclements@smurfit.com).

Sincerely

A handwritten signature in cursive script that reads 'Bobby Sammons'.

Bobby G. Sammons  
General Manager