



# 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

January 12, 2010

*Electronic Mail – Received Receipt Requested*

Mr. James Vick, Environmental Affairs Director  
Gulf Power Company  
One Energy Place, BIN 0328  
Pensacola, FL 32520

**Re: Request for Additional Information**

Project Nos. 0330045-029-AC and 0330045-030-AC  
Gulf Power Company, Crist Electric Generating Plant  
Higher Sulfur Coal, Sulfuric Acid Mist Mitigation and Unit 6 Steam Turbine Upgrade

Dear Mr. Vick:

On December 14, 2009, we received your application and sufficient fee for minor air construction permits for the above referenced permits. Application No. 0330045-029-AC requests approval to use a higher sulfur coal and install a sulfuric acid mist (SAM) mitigation system for all units. Application No. 0330045-30-AC requests approval to upgrade the existing Unit 6 steam turbine to produce approximately seven additional megawatts (MW) of generation. Since the steam turbine project is planned to be installed in 2012 and the emission calculations include the recent changes, these two projects have been combined into a single application (No. 0330045-029-AC). The facility is located in Escambia County at 11999 Pate Street in Pensacola, Florida. The application indicates that the project is subject to general preconstruction review pursuant to Rule 62-212.300 of the Florida Administrative Code (F.A.C.). The application is incomplete. In order to continue processing your application, please provide the additional information requested below. Should your response to any of the requested items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

1. For the steam turbine upgrade, please submit a table showing baseline actual emissions, projected actual emissions, change in emissions and Prevention of Significant Deterioration (PSD) significant emission rates.
2. Please provide an estimate of the cost to upgrade the Unit 6 steam turbine and the cost for the SAM mitigation system. Provide a description of the input parameters to the SAM mitigation system and how the lime injection rate will be controlled.
3. Please provide the equation used to calculate SAM emissions, a summary of the emissions test data supporting this equation and an example calculation.
4. Please identify the catalyst conversion rate across the Unit 6 selective catalytic reduction (SCR) system. How does this compare with what is observed on Unit 7 with SCR? Also, identify the individual baseline actual SAM emission rates for Units 4, 5 and 7. Which 2-year period was used to estimate the baseline actual SAM emissions for Units 4-7? Was the same 2-year period used for all other pollutants?
5. In the Tables "Emissions Impact Analysis Crist 6 Emissions Analysis with SCR with Max. 2.4 SO<sub>2</sub> lb/mmbtu fuel" and "Higher Sulfur Fuel Blend Scenario Crist 6 Emissions Analysis with SCR with max 3.40 SO<sub>2</sub> lb/mmbtu fuel" the net change in NO<sub>x</sub> emission is (-) 1,484 tons/year. In the table "Crist Emissions Analyses

**REQUEST FOR ADDITIONAL INFORMATION**

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for High SO<sub>2</sub> Fuel Blend @ 3.35 lb/MMBTU” the net change in NO<sub>x</sub> emissions is (-) 454.2 tons/year. Please explain the differences in these tables and provide additional calculations as necessary.

6. Please provide the SAM emissions in the following table:

**Projected Actual Emissions with HSC (3.35 lb SO<sub>2</sub>/MMBtu)**

Projected Actual SAM Emissions (TPY)*	Unit 4	Unit 5	Unit 6	Unit 7	Total
Before SCR Systems					
After SCR Systems					
After HLI System					
After FGD System					

\* Excluding demand growth.

The above information is requested pursuant to the following F.A.C. regulations: Rule 62-4.050 (Procedures to Obtain Permits and Other Authorizations; Applications); 62-4.055 (Permit Processing); 62-4.070 (Standards for Issuing or Denying Permits; Issuance; Denial); 62-4.120 (Construction Permits); 62-204.800 (Federal Regulations Adopted by Reference); 62-212.300 (Permits Required); 62-210.370 (Emissions Computations and Reporting); 62-210.900 (Forms and Instructions); 62-212.300 (General Preconstruction Review); and 62-212.400 (Preventions of Significant Deterioration). All applications for a Department permit must be certified by a professional engineer registered in the State of Florida pursuant to Rule 62-4.050(3), F.A.C. 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.

We will resume processing your application after receipt of the requested information. 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. If you have any questions regarding this matter, please contact the project engineer, Christy DeVore, at 850/921-8968.

Sincerely,



Christy DeVore, P.E.  
New Source Review Section

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

- Mr. James Vick, Gulf Power Company ([jovick@southernco.com](mailto:jovick@southernco.com))
- Mr. G. Dwain Waters, Gulf Power Company ([gdwaters@southernco.com](mailto:gdwaters@southernco.com))
- Mr. Gregory Terry, Gulf Power Company ([gnterry@southernco.com](mailto:gnterry@southernco.com))
- Mr. John Dominey, Gulf Power Company ([jmdominey@southernco.com](mailto:jmdominey@southernco.com))
- Mr. Rick Bradburn, DEP NWD Office ([rick.bradburn@dep.state.fl.us](mailto:rick.bradburn@dep.state.fl.us))
- Mr. Mike Halpin, DEP Siting Office ([mike.halpin@dep.state.fl.us](mailto:mike.halpin@dep.state.fl.us))
- Ms. Kathleen Forney, EPA Region 4 ([forney.kathleen@epa.gov](mailto:forney.kathleen@epa.gov))
- Ms. Ana M. Oquendo, EPA Region 4 ([oquendo.ana@epa.gov](mailto:oquendo.ana@epa.gov))
- Ms. Heather Abrams, EPA Region 4 ([abrams.heather@epa.gov](mailto:abrams.heather@epa.gov))
- Ms. Vickie Gibson, DEP BAR Reading File ([victoria.gibson@dep.state.fl.us](mailto:victoria.gibson@dep.state.fl.us))

JFK/scd

## Livingston, Sylvia

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**From:** Livingston, Sylvia  
**Sent:** Tuesday, January 12, 2010 1:20 PM  
**To:** 'jovick@southernco.com'  
**Cc:** 'gdwaters@southernco.com'; 'gnterry@southernco.com'; 'jmdominey@southernco.com'; Bradburn, Rick; Halpin, Mike; 'forney.kathleen@epa.gov'; 'oquendo.ana@epa.gov'; 'abrams.heather@epa.gov'; Gibson, Victoria; DeVore, Christy; Koerner, Jeff; Walker, Elizabeth (AIR)  
**Subject:** Request for Additional Information: Gulf Power Company - Crist Electric Generating Plant (0330045-029-AC/0330045-030-AC)  
**Attachments:** RAI 0330045-029\_030-AC.pdf

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, *noting that you can view the documents*, 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,

Sylvia Livingston  
Bureau of Air Regulation  
Division of Air Resource Management (DARM)  
Department of Environmental Protection  
850/921-9506  
[sylvia.livingston@dep.state.fl.us](mailto:sylvia.livingston@dep.state.fl.us)

## Livingston, Sylvia

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**From:** Vick, James O. [JOVICK@southernco.com]  
**Sent:** Wednesday, January 13, 2010 10:01 AM  
**To:** Livingston, Sylvia  
**Subject:** RE: Request for Additional Information: Gulf Power Company - Crist Electric Generating Plant (0330045-029-AC/0330045-030-AC)

We are in receipt.

Jim Vick  
Director Environmental Affairs  
8-420-6311  
850-444-6311  
Cell: 850-982-6204  
Have a great day.

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**From:** Livingston, Sylvia [mailto:Sylvia.Livingston@dep.state.fl.us]  
**Sent:** Tuesday, January 12, 2010 12:20 PM  
**To:** Vick, James O.  
**Cc:** Waters, G. Dwain; Terry, Greg N.; jmdominey@southernco.com; Bradburn, Rick; Halpin, Mike; forney.kathleen@epa.gov; oquendo.ana@epa.gov; abrams.heather@epa.gov; Gibson, Victoria; DeVore, Christy; Koerner, Jeff; Walker, Elizabeth (AIR)  
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Thank you,

Sylvia Livingston  
Bureau of Air Regulation  
Division of Air Resource Management (DARM)

## Livingston, Sylvia

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**From:** Waters, G. Dwain [GDWATERS@southernco.com]  
**Sent:** Tuesday, January 12, 2010 2:31 PM  
**To:** Livingston, Sylvia; Vick, James O.  
**Cc:** Terry, Greg N.; jmdominey@southernco.com; Bradburn, Rick; Halpin, Mike; forney.kathleen@epa.gov; oquendo.ana@epa.gov; abrams.heather@epa.gov; Gibson, Victoria; DeVore, Christy; Koerner, Jeff; Walker, Elizabeth (AIR)  
**Subject:** RE: Request for Additional Information: Gulf Power Company - Crist Electric Generating Plant (0330045-029-AC/0330045-030-AC)

Gulf Power has received the Crist RAI and will respond.

Dwain Waters

G. Dwain Waters, Q.E.P.  
Special Projects and Environmental Assets Coordinator  
Gulf Power Company  
One Energy Place  
Pensacola, Florida 32520-0328  
Phone: (850) 444-6080  
Cell: (850) 336-6527  
Fax: (850) 444-6217  
[gdwaters@southernco.com](mailto:gdwaters@southernco.com)

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**Sent:** Tuesday, January 12, 2010 12:20 PM  
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**Cc:** Waters, G. Dwain; Terry, Greg N.; jmdominey@southernco.com; Bradburn, Rick; Halpin, Mike; forney.kathleen@epa.gov; oquendo.ana@epa.gov; abrams.heather@epa.gov; Gibson, Victoria; DeVore, Christy; Koerner, Jeff; Walker, Elizabeth (AIR)  
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